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WOUNDS OF THE FINGERS, AND HOW TO TREAT THEM.

BY

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SOME of the minor casualties which come within the range of surgical practice require quick and ready help; such help, I mean, as ought to be within the capacity of every medical man, whatever may be his qualifications or the technical method of exercising his craft. As old as Ulysses is the song which celebrates the wise physician, "skilled our wounds to heal;" and the conventional distinctions of our own day deserve a hearty ridicule if they prevent a Doctor of Medicine from relieving a distended bladder, stopping a dangerous hæmorrhage, or putting a little plaister over a gaping wound. To relieve pain and to repair an injury are the noblest badges of our art. These functions belong to no special bureau; they are the common aims of all medico-chirurgical science; and

he who can most expertly do this twofold work comes nearest to the ideal standard of a medical practitioner.

The hand is the most finished symbol of a human creature,* and the fingers are the terminal instruments by which most of the powers and utilities of the hand are carried out. Injuries and deformities of the fingers may, therefore, spoil and even permanently cripple the dexterity of the whole upper limb. The pathological anatomy of the fingers has not received the attention which it merits. An irregular brigade of busy folk, called chiropodists, ply their trade on the toes with no little success; and all sensible doctors welcome the aid of these unlicensed auxiliaries, for their work demands special tools, and also certain petty aptitudes which are a sort of natural gift. But who takes care of the fingers? Chilblains infest them; warts disfigure them; they are weakened by rheumatism and gout; whitlows burrow among the tendons and fascia; and the diseases of the nails are a sufficient study for the dermatologist.† But if the medical troubles of the fingers are within the territory of both physician and surgeon, I plead that sudden traumatic disasters should belong to the same territory too;

* The finest English monograph on the human hand, from a philosophical standpoint, is the Bridgewater Treatise by Sir Charles Bell. The argument is well developed; that argument, I mean, which was the speciality of the Bridgewater Treatises. During a botanical excursion from King's College in 1849 or 1850, I heard the late Professor Edward Forbes say that he greatly disliked what he called "Bridgewater Treatising." Perhaps the logic of those once famous volumes was not always coherent or consistent; and one of its dangers lies in evoking the kind of challenge lately put forward by a distinguished oculist, who maintains that the weaknesses and imperfections of the human eye prove that an all-wise Creator could not have created it. (See an astonishing page in the *Practitioner*, January, 1882, p. 70.)

† One of the plates of the New Sydenham Society's *Atlas* may be consulted.

for a trifling mutilation of only one finger may cause life-long deformity and disability, and be an abiding witness of neglect or want of skill.

The text of my paper is a case which occurred to me last summer, and which shall be related in the fewest words.

On the morning of August 1st, 1884, the son (aged 22) of a tradesman was brought to my house with his left hand bleeding profusely. Half an hour before, the third and little fingers had been caught and cut by some machinery; in both fingers the cut had gone across the matrix of the nail; the last phalanx of the third finger was almost separated; in the little finger the wound was not so deep. I stanched the flow of blood with circular pledgets of lint; next I fastened the arm and hand to a board, and suspended the whole limb in a sling; and the last step of these preliminary proceedings was to send the patient home to recover from the shock, with the help of warm food and a little sleep. Four hours afterwards I visited him, and dressed the injured fingers in the following way:

Firstly, the pledgets of lint, stiffened with dry blood, were soaked in water and gently removed. No foreign body of any kind was found. The fingers were thoroughly cleansed, the nearly separated portions were brought into juxtaposition, and retained *in situ* while a circlet of boric lint was applied. Each finger was laid upon a bed of absorbent cotton-wool tissue, which just met on the dorsal side; then a Lilliputian bandage of thin soft calico was put around, with moderate pressure, and the turns of bandage were brushed over with the gum acacia mucilage of the *British Pharmacopœia*. Finally, each finger was put into a cradle of gummed paper, which was

moulded while soft, and then dried in the gradual heat of an oven. These light and simple shields kept the fingers apart, and guarded them from further accident.

It will be observed that, with the exception of the boric lint, not a scrap of antiseptic material was used. The two aims of the mechanical treatment, were (*a*) to render the injured parts absolutely immobile, and (*b*) to keep off anything which might hurt them, whether that "anything" were invisible morbific germs, or coarse physical roughness. In doing the former work, the latter was done too: the very machinery devised for the one purpose fulfilled the other. Perfect immobility could be obtained only by an apparatus which surrounded every phalanx and every joint; flexor and extensor tendons were held in bonds which they could not burst; and the completeness of these bonds shut out all air, with its legion of spores, dust, and noxious gases. The common air which we all breathe, whether we like it or not, is said to be so full of infective stuff and contagious mischief that it is a physical wonder how anybody lives at all, and a still greater wonder that there is any enjoyment and glory in life. Even the purest medical atmosphere is, in a surgical sense, a vile medium, microscopically loathsome; and to keep it at a distance is one of the cunning stratagems of surgical art. The question, therefore, is this: If a wound be sealed all round with a wrapping which is impermeable to air, is not this sufficient in itself to keep the wound sweet and non-purulent until it is healed? Or must the wrapping be charged with a so-called antiseptic quality?

I venture to say that it is the exclusion of the germ-bearing air which is the secret of the whole matter. We are not discussing now surgical wounds made for ulterior

purposes, such as the extraction of tumours, the letting-out of fluid, or examining the condition of any of the viscera: these "vivisections" are made with deliberation and science, and are very properly hedged round with the safeguards of antiseptic weapons and an antiseptic atmosphere. But the unforeseen and sudden wound which draws blood, done in a moment, and being nought but evil in its suffering and its consequences, ought to be closed, wrapped up, and made a "sealed book" as quickly as possible. And if not so quickly as it ought to be, we have at least done our part as soon as we can; and my contention is, that the conditions of the problem are fulfilled if the severed flesh be brought together, and then locked up (so to speak) until it be healed. Where was the superstition born, and how was it bred, that a wound needs to be incessantly meddled with, looked at, sponged, sprayed, and finally covered with some stinking acrid stuff which is said to kill germs? Do we take up a tree every few hours to see how it grows?

It is time to return to the case which is the text of my paper. On the following day my young patient said that he had slept as usual, and he seemed free from all pyrexial disturbance. The anxious domestic question was this: The parents had arranged their plans for a holiday of three days (including the Bank Holiday of August 4th): might the son go with them to the seaside? I saw no objection, and when he returned on Wednesday morning, the 6th, the report was that the fingers were "very comfortable;" there was no swelling or pain in the hand and arm; everything seemed sweet and pure, and the apparatus was in perfect order. On the same evening I left home for my usual holiday, and transferred the case to my friend, Mr. Hopkins. The wounded

fingers were not undressed until eleven days had elapsed from the date of the accident;* and when exposed to view the healing was found to be complete, and the fingers were of their natural size (though, of course, a little shorter than before the injury). The tender cicatrices were protected for a few more days with ordinary plaister, and the work was finished.

Mr. Sampson Gamgee is the latest prophet and missionary of John Hunter's "epoch-making generalisation," that absolute immobility is requisite for the restoration of wounds and fractures. Immobility is another name for local rest; *local* in contradistinction to that general rest which is often medically injurious, because so disturbing to physiological functions. Immobility, in a surgical sense, may be attained by uniform compression over a large area; a compression which has no therapeutic alliance with constriction, for this implies a tight fetter over a narrow band of surface, squeezing nerves, and obstructing blood-vessels. Mr. Gamgee's book, *On the Treatment of Wounds and Fractures*, is an eloquent exposition of this important principle of surgical therapeusis—a principle which is far-reaching in its application, and wonderfully helpful to the comfort of our patients. The instruments of Mr. Gamgee's workmanship are cotton absorbent gauze, softened millboard splints, and thin calico bandages. These are welded together into an uniform mass by the aid of liquid starch; muscles are rested, bones are supported, joints are immobilised, and textural damage of every kind quietly mends. Nothing else but mending is, indeed, possible, so long as a part has any life in it. Buried from all sight and harm, interred within a rigid cuirass of benign swathings, the

* During all this time the weather was very hot.

marvel would be if wound, fracture, or strain did not obey that natural order which, when we do not thwart it, always strives to bring right out of wrong.

The exceeding simplicity of Mr. Gamgee's method is a high commendation to the reasonable mind; for art is most simple when it tries to imitate Nature. And if our efforts should be baffled and altogether beaten, then, and then only, are we entitled to speak of hidden dynamic forces stopping the way; it may be embolism, or arterial obstruction, or poisoned blood, or bruised and shaken nerves. We deserve to fail when we not only do not imitate Nature, but do some thing which defies her "first principles," and disobeys those lessons which may be learnt at the bedside whenever we choose to sit down and learn them.

In the summer of 1870 I met, in a remote part of a neighbouring county, a skilful surgeon in consultation. A labouring man, while hewing a tree, had plunged a hatchet into his knee-joint, and thereby made a large and dangerous wound. The man's mistress, a benevolent lady, who had been lately under my care, desired to have my advice in the matter. We acted in accordance with the then authentic practice in putting the injured joint under a dropping cascade of the coldest water; special safeguards were provided against movement and the admission of air into the cavity of the joint, and bags of ice were sometimes placed upon it. Opium was freely given, and plenty of nourishment. Of course the man died, and there were plenty of reasons why he could not do otherwise. Now, what would be done in such a case by the pure restorative surgery of to-day? The wound would be covered by lint, dipped in a styptic colloid; its vital temperature would be maintained by an environment of dry wool or wadding; immobility would be secured by

millboard splints and bandages; and vascular tension would be reduced by steady elevation of the limb. Given a fairly healthy patient, and our success is almost certain. It is in wounds of the joints that Mr. Gamgee most clearly demonstrates the truth of his principles and the facility of their application. His cases exhibit a remarkable success, and it is interesting to note how his practice was foreshadowed by William Hey and the elder Larrey.

The fingers are tiny organs, but they are large enough to be landmarks for sound practice, and beacons against bad. There is room to try many surgical schemes on these tapering little cylinders of flesh and blood; and the treatment of other injuries, besides incised wounds, requires to be carefully weighed and dexterously carried out. The doctrines of Hilton and Lister can never grow old, and their importance is clear to the most slender understanding. But what those doctrines really imply is not always so clearly seen. During the process of healing, *rest* means equal support in all directions, and *antisepticism* means absolute protection from every soil of this "work-a-day world." Attend to the conditions which these terms convey, and an insignificant injury will not have its dark shadows of abscess, or erysipelas, or gangrene. In the petty "operation" of dressing a cut finger, do everything with as much neatness and precision as if you were dealing with a deep stab in the chest, or with the manifold lesions of a compound fracture. And if we are apt scholars in the school of prevention, as well as in the school of curing, we shall less often exemplify the cleverness of which Goldsmith sings in his famous elegy to Mrs. Mary Blaize, who died, and then—alas! too late—

> "The doctors found, when she was dead,
> Her last disorder mortal."

CREMATION.

BY

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(Read at meeting of Bristol Medico-Chirurgical Society.)

IF, as has been said, "*Progress is the law of Life*," and if this same "progress" is seriously obstructed by the ignorance of the public at large—its want of information in so far as the laws of health and the sources of disease are concerned—and if, moreover, we, as members of the medical profession, are cognisant of these same laws, and can and do appreciate the many and ever-active sources of suffering and disease among our kind, does it not follow that we are under a deep obligation to teach the public (as best we can) the many means whereby the laws alluded to above may be duly obeyed, and the health preserved; or, what is the same thing, much suffering and disease averted, or, to say the least of it, very materially lessened? I cannot doubt that our duty goes far, very far, in the direction here indicated.

To this present time we have worked fairly well, as teachers of hygiene; but now it must be admitted that the world is more than ever astir. It has, it would appear, crept well out of its shell, and far into the sunshine of a higher life; but we must still keep the lead. Our advantages, educational and practical, over the masses of mankind are so certain and demonstrable that —to use the significant and telling phrase of a late President of the American States, the famous Lincoln— we are bound to "KEEP PEGGING AWAY."

Now, there is no single question agitating the public mind more than that of the disposal of our dead. To

within the last year or two, cremation hardly stirred the feelings of the most sensitive. It is to this very important subject that I desire to call the attention of those present this evening. I hope to convince you that, regarded from a sanitary point of view, the burning of the dead is most desirable, and is, in all respects, to be commended. In view to the entirety of the subject—its rise and progress to this present time—it may be well, perhaps, to refer to the labours, commenced now forty years since by a London surgeon—the late G. A. Walker. Though a hard-worked practitioner, he failed not to make his profession and the public his debtors through time for his very clever and thoroughly practical book, entitled, *Gatherings from the Graveyards of London.*

The prevention of disease was, indeed, Walker's speciality: to this great end he devoted the best years of a well-spent life. With the conviction that "burial-places in the neighbourhood of the living are a national evil"—"the harbingers, if not the originators of pestilence"—"the cause, direct or indirect, of inhumanity, immorality, and irreligion;" "that some of the most afflictive visitations of Providence have originated in the contaminations of the atmosphere from putrefying animal substances;" and that "to the neighbourhood of the graveyard may be attributed the violence, if not the origin, of some of the most destructive diseases which have depopulated the human race"—he (Walker) then offers a meed of praise to America for its efforts towards the substitution of the "*cemetery*" for the aforesaid "*graveyard,*" and adds these words—words pregnant then, as now, with warning to the party who would "*rest and be thankful*"—viz., "But England looks on, a silent and unmoved spectatress of some of the most offensive

and dangerous encroachments upon the security and sanctity of the resting-places of her dead."

Walker's book here quoted is thoroughly practical—the outcome of investigations carried on during a series of years, and embracing a close examination of some three dozen of the then "Metropolitan burying-places."

The Secretary of State of the time alluded to was unmoved in the matter, and to Walker's "copious general statements no kind of acknowledgment was made." But the Press, we are told, "was at length attracted to the very flagrant abuses of intramural interment, and hence, and after long time, the erection of cemeteries—such as now exist."

Time, however, moves on, and with it circumstances change; new wants arise. With the progress of medical science, the comparatively rough-and-ready means to hand, of a past time, are found insufficient and defective. Furthermore, the enormously increased and increasing population here and everywhere makes its demands on the attention of the thinking members of society. Such demands must be responded to. In the days of Walker it was held sufficient to recognise the fact that "those who dig graves do not live long;" that "the vapours which they respire soon destroy them;" that "animal exhalations, and especially those which arise from a dead body in the process of putrefaction, are very afflicting and very dangerous;" that "the peculiar character and virulence of disease in the proximity of graveyards" was a matter of demonstration; and that the "miasmata from animal putrescency may and do occasion not only the instantaneous loss of human existence, but increase the intensity of pestilential diseases." But such hard facts, though of deep and serious import, cannot be

said to tell all the truth, in this year of grace 1884! As our late President (Dr. Fyffe) told us in his Inaugural Address of last year: "We live now in days when busy brains are searching with all their powers for the ultimate causes of specific diseases; when the investigation for living organisms in the blood and animal tissues has become the absorbing object of modern pathological inquiry." As you know well, Tyndall confirms the above position. In words ever to be remembered he has declared that "the physician and the sanitarian have no longer to fight against phantoms—their enemy is revealed." It is not at this time as it was when Walker wrote: the contention now is something more than the mere noxious gases, but "*organised germs*." Contagia are living things. Men and women have died by thousands, and are now dying by thousands, that bacteria and bacilli might live. These—the outcome of modern or recent investigation, and the sources at once of disease and death—demand something more than Walker advocated, *i.e.*, a remedy more potent than any he conceived. Our only recourse is *cremation*. The burial-places of this day—the cemeteries—have become, what Walker described the old graveyards; the first-named, or many of them, are no longer suburban—really suburban—but enclosed by the habitations of the living. The increased and increasing population everywhere must add to the value of land. Our present dependence on America, and on the Continent and elsewhere, for food must tend to increase this value. The land must become really utilised; must be devoted to its legitimate purposes —the growth of food—and not to the burial of the dead.

In an able and instructive tale from the pen of the Rev. H. R. Haweis, entitled, *Ashes to Ashes: a Cremation*

Prelude, we read thus: "Go through London, and many another large town, once a rural hamlet, now a *crowded city, with a pest-house in its centre.* That is the history of your burial-grounds; that in time must be the history of all burial-grounds," by whatever names recognised. "Look," it is added, "at your Brompton, your Kensal Green, your Norwood cemeteries and others. But yesterday in open fields, now the centres of a growing population; now fast filling—nay, full to repletion." The cemetery of to-day *is* fast becoming—as a consequence of the overcrowding just alluded to—a real centre for much the same kind of "*management*" as did the old graveyard. Mr. Haweis writes: "If grave-diggers have ever broken off the plates from coffins, if they have broken up coffins before they were decayed, if they have removed bodies to the bonehouse before they have been sufficiently decayed to make the removal decent—what surety have we that they do not, nor will not, repeat the abominations? None at all. But grave-diggers are not, it appears, alone to blame. The objections so manifold in the present mode of disposal of our dead have other sources. In spite of our Government Inspectors and our Boards of Health, the overcrowding of the churchyard and the cemetery is of no infrequent occurrence. The mould in many a burial-place, it is well-known, is literally saturated with the dead; and in spite of such a state of things, the hearses stream in to deposit their ghastly freights of human merchandise. The burial fees are not without their attractions, notwithstanding the pressure in regard to space and overcrowding." It may be said that such a mode of business or "*management*" as is here referred to belongs to the past—has ceased to be; that the grave-digger, and

not less the capitalist, are now under the influence of better and loftier principles of conduct; but the annexed paragraph, which I have taken from the *Scotsman* newspaper but a comparatively short time since, will show that such "*management*" has not yet ceased to be, and that the same filthy love of gain or lucre still holds the higher, the nobler, faculties of man in abeyance.

In the *Scotsman*, then, are seen these words; viz., "The burial-ground of St. Cuthbert is situate in the centre of Edinburgh; it is one of the oldest. In the last fifteen years 10,800 bodies have been placed there. Graves were reopened up to 1874; some every seven, some every three years. Coffins with no plates were usually broken open; the remains were often not 'ripe'—that is, undecayed—the coffin-wood was burned, the remains heaped pell-mell upon others, to make room for more. At last, but one or two inches of earth could be placed between the coffins. When all this came out in court, the sheriff observed that, although such revolting practices were freely carried on in other churchyards, there was no reason why they should continue in the heart of Edinburgh." Yes, the remark of the sheriff was, and is now, true to a large extent. "Revolting practices," of a kind, are rife now at the cemeteries at Highgate, Kensal Green, and Brompton, among others. These burial-places, it should be known, were condemned, in 1850, by the Board of Health, and ordered to be closed, in the interests of the public health; but to this day they remain *unclosed*. The last-named cemetery was bought by Parliament, yet the Government of the country is now using it, "at high pressure and remunerative rates," though "condemned" by its own Board a generation since!

Under the circumstances narrated, how little are the

relics of the dead respected in this year of grace, 1884! How little indeed, when we learn from the *Quarterly Review* (No. 42, p. 380) that "many tons of human bones every year are sent from London to the North, where they are crushed in mills constructed for the purpose, and used as manure!" Well may the Rev. H. R. Haweis exclaim, or rather write: "Truly the unclean monster of burial has been too long on trial. He has been tried and found guilty of murder, robbery, and every kind of corruption. *The pure fire-angel of Cremation stands now at the door.*" I will now ask your attention to the various and specific forms of danger and disease of which the disposal of the dead by fire would relieve the living, and to other advantages to be gained by cremation.

To the plea for cremation from the facile pen of the Rev. John Constable, rector of Marston-Biggott, near Frome, I would invite your attention. The clergyman named officiated at the cremation of the body of the late Captain Hanham, to the memory of whom, as well as to that of the late Lady Dilke, be all honour. They offered a bright example to the living, one which WE, Mr. President, will do well to follow. Mr. Constable writes thus; viz.: "The account of the cremation of the body of the late Captain Hanham has greatly revived the public interest in that method of disposing of our dead. I venture, therefore, to hope that you will insert in your journal" (the editor of a local daily paper is being addressed) "an important extract, which bears directly on the question. In the reports from Her Majesty's Diplomatic and Consular Offices abroad on subjects of general interest, presented to both Houses of Parliament this year, there is one from Mr. Corbett, of Rio de Janeiro, embodying the investigations of Dr. Freire on

the subject of yellow fever. Dr. Freire writes: 'I think it a duty to divulge as soon as possible a circumstance of much importance to the public health. Having gone to visit the Turnjuba cemetery, where those dying in the Maritime Hospital of Santa Isabel are interred, I gathered from a foot below the surface some of the earth from the grave of a person who died about a year ago of yellow fever. On examining a small quantity with the microscope, I found myriads of microbii exactly identical with those found in the excreta of persons sick with yellow fever. These observations, which were verified in all their details by my auxiliaries, show that the germs of yellow fever perpetuate themselves in the cemeteries, which are like so many nurseries for the propagation of new generations destined to devastate our city. A guinea-pig, whose blood, examination showed, was in a pure state, was shut up in a confined space, in which was placed the earth taken from that grave. In five days the animal was dead, and its blood proved to be literally crammed with disease germs in various stages of evolution.'"

Side by side with the experiences of Dr. Freire, of Santa Isabel, we have those of the famous Pasteur, and from which it appears that to the common earthworm must be referred the occurrence of anthrax or splenic fever in cattle and sheep.

It appears, then, that in CREMATION alone can be found the necessary protection from "disease germs" of whatever kind, or by whatever names recognised—"Bacteria" or "Bacilli," and so on. It must be borne well in mind that both the air we respire and the water we drink are utilised by such germs—that is to say, are made subservient to them—and hence, in great part, the fearful diffusion of disease and death.

The late Dr. Snow proved, as you know, that an outbreak of cholera, in 1854, was due to the use of the water of a particular pump in Soho. This water was said to be contaminated; but with what, it was unknown. Others —among them, Dr. Carpenter—inclined to the opinion that the epidemic was due to "*defiled air*." But, judging from the recent experiments of Dr. Koch at Calcutta, cholera, like yellow fever and splenic fever, is due to "bacilli" of a peculiar form. We may well exclaim, What a revolution is here! What a change in practical medicine has this microscope created! It may well be asked, What may not be its future discoveries in the cause of science, in the interests of mankind?

However, so far as cholera is concerned, we seem bound now to prefer the evidence of Koch to the suggestion of Dr. Carpenter, made in 1854, as to the presence of "defiled air" as the first cause of cholera—let it occur either "in Soho" or within the precincts of a populous Eastern city like Calcutta.

Now, these "*bacilli of a peculiar form*," it is well to remember, are said to be found "in cholera patients only; always in them, and never in other patients." Such was the conclusion of Pasteur to within the last four months, and this was then declared to rest on the most satisfactory evidence. The following extract is from a paper, *On Cholera*, published on the authority, as it would seem, of Pasteur, in the spring of this year, 1884: "The final proof, however, in the actual production of the disease by the administration of the bacillus was wanting. It was given to mice, cats, and dogs, but did them no harm. Dr. Koch, however, made another step. An outbreak of cholera in Calcutta led to the examination of the reservoir or pond from which the people of the

stricken district drank, and the cholera bacillus was found in it in great numbers. It was noted, moreover, that as the epidemic died away, there was a clearing of the water from the parasite. This final proof of the discovery is due to Dr. Vincent Richards, an English surgeon in India, who gave some of the bacilli to a pig, which was seized with violent cholera, and died in three hours. This experiment seems to be conclusive, and the discovery may now be regarded as complete." Thus far it would appear that man is very clearly at the mercy of the many kinds of germs revealed to him by scientific research. To this time, he has put his faith, but too exclusively, in antiseptics. With these he has fought the germs so devoted to his destruction and death. Can it be doubted that the most potent means of contention have been to this time unemployed? I allude to CREMATION. To this we must come; it is a real necessity—the one resource altogether inevitable, if we would, as above remarked, "relieve the living of much suffering and disease, and so add to the advantages and blessings of this life."

Now, we have all of us heard much of the extinction of infectious diseases, on the ground that such diseases never arise spontaneously. The assumption is, that small-pox, measles, scarlet fever, whooping-cough, typhus and typhoid fever, do invariably *"breed true;"* or, what is the same thing, neither one produces another of them. For example sake, the virus of small-pox never causes typhus, and so on to the end. If, then, the diseases named are simply contagious, we may hope that in the long run they may be prevented or exterminated. But the mode of their extinction—if there be such a mode—must be such as will take in the dead as well as the living. The per-centage of deaths from the diseases just named, as

well as from diphtheria, glanders, malignant pustule, &c., to say nothing of the principal contagious disorders of the domestic animals, cannot be said to be else than high. If, then, as it is believed, each one of the human family, and each and every animal, whose death is caused by either one of the infectious diseases named above, furnishes a centre—the abode of bacteria and such like, seeds whose presence and germination are ever on the alert to infest the healthy and living—what else than the burning of the dead man and animal can be resorted to, or can be relied on to insure their extinction? If such centres—as I have called the dead bodies of those, the prey of the several diseases named—are buried after the old fashion, each one of such can but add to the probabilities of poisoning the spring or watercourse, which may find its exit in some locality fated to suffer therefrom, or, in the due course of time, to add to the heavy cloud of miasma which ever and anon presses on all places of interment of the dead, whether the dead be human or animal. Furthermore, it must be borne in mind that the clothing—the shroud, or what not, about the dead bodies of those dying from fever, diphtheria, cholera, &c., &c., do long retain their virulent properties —a cloak, for instance, having been known to give scarlet fever after having been laid by for eighteen months; and the poison of anthrax or splenic fever of cattle having been found active after keeping for four years; so that if we would realise or bring about the extinction of infectious diseases, those dying from them must be the subjects of the "*pure fire-angel of cremation*," so called by the Rev. H. R. Haweis.

Cremation has many side or indirect relations to medical science; one such is seen in that peculiar condi-

tion of the nervous system recognised by the term TRANCE. Now, the occurrence of trance is not so infrequent as some may suppose. In my own practice—covering now a period of more than fifty years—I have seen five such cases. I think it not unlikely that the patient in a trance-fit may be looked on as in a state analogous to that of certain of the lower animals—as the dormouse and bat, &c.—seen in the condition of *hybernation*, when the cerebro-spinal system is at rest, or, for the time being, suspended. In the ordinary and complete trance, as it occurs to man or mankind, the disuse of food (fasting) is commonly present. Trance, it may be added, occurs for the most part spontaneously—is subjective; but I have known it to exist as an objective condition, and to have been induced both by the inhalation of chloroform and by mesmeric passes. Now, the occurrence of trance suggests the idea—and a most painful idea it is—that a patient so afflicted may be either buried or cremated before the life is extinct. But the fact tells nothing as against cremation, but the reverse, as I shall hope to prove. However, in order to prepare the way for such proof, let me quote in detail the particulars of certain cases of trance, if it be only to excite in the minds of my hearers the real necessity which exists for patience and caution in matters pertaining thereto.

I have before me the particulars of four cases of trance. The first was so long as 28 weeks "*in a state of profound sleep*," and during the period named "*she never woke once, nor received nourishment of any kind.*" She "*quite recovered.*"

In the second case "trance" succeeded to an illness. It lasted "*eight months.*" "About once in six weeks," she awoke "during a few hours," and partook "of nourishment of the lightest description," being then "in

entire possession of all her faculties." In this instance also recovery took place.

The third instance of the kind occurred at Hereford some two or three years ago. It is headed a "*Narrow Escape of being Buried Alive*," and is described thus; viz: "An extraordinary case of trance has just been brought to light at Hereford. A girl named Sarah Ann Dobbing, eleven years of age, who has lived since she was very young with her great-aunt, Mrs. Derry, was for some days past considered to be dying, and on Tuesday night she was laid out for dead. Arrangements were made for the funeral, and shortly before its appointed time a Miss Cooke and a Miss Bethell came to look at the supposed corpse, and to the amazement, and almost horror, of both, the covering of the body was observed to be moving. The child was then found to be alive, and medical assistance was at once procured. About three weeks before her supposed death the girl's condition underwent a marked change, and for some time she had not been able to take anything but a very little water, passed between her teeth with a teaspoon. Dr. Whitfield and Dr. Smith, who were called in after her revival, had a yolk of a newly-laid egg beaten up, and introduced by means of a syphon. This had an immediate effect on the heart and brain, but it was not long before the stomach returned it. On Friday morning, the patient was in an absolutely unconscious state—the mouth wide open, the tongue protruding its full length, the eyes fully open, the eyeballs turned up and rigidly fixed, and the right hand raised, and the whole frame in a state of hysterical agitation. The patient has been sensibly affected by the alternations of day and night, sleep coming to her aid as the days have closed, and only leaving her as

morning arrived. An experienced nurse, who has been much with the child during the last month, had the charge of her when she was assumed to have been dead, and arranged the laying out."

But all the subjects of the "TRANCE-STATE" do not regain their normal state of being—do not recover; and for this simple reason—their real condition, their temporary and abnormal existence, is mistaken for death: they are buried alive.

In the London *Daily Times*, dated May, 1874, you may read the following words: "In August, 1873, a young lady died not very long after her marriage. Within a year the husband married again, and the mother of the first bride resolved to remove her daughter's body to her native town. They open the vault, and find the poor creature's body fallen prostrate on the ground, her hair dishevelled, and her shroud torn to pieces. She had risen out of her trance, and had burst her narrow prison" —her coffin—"but to find herself in one but a trifle larger—but far more inexorable. It must not be supposed," it is added, "that this is altogether exceptional, for at Sonnens, Lower Garonne, and at Bergarac, Dordogue, cases of premature interment have also, and within a few years, occurred; the particulars of these are to be found in the *Sunday Times*."

Now, in so far as trance-patients are concerned, such, it may be said, may be by possibility either buried alive or burnt alive; but if a comparison may be made between these two forms or modes of killing—so to put it—then the comparison must be in favour of CREMATION. Sir Henry Thompson has written on this matter in these words—words so pregnant with truth, and so conclusive, that I hesitate not to call your especial attention to them:

"There is a source of very painful dread—little talked of, it is true, but keenly felt by many persons at some time or another—the horror of which to some is inexpressible. It is the dread of a premature burial; the fear lest some *deep trance* should be mistaken for death, and that the awakening should take place too late. Happily such occurrences must be exceedingly rare, especially in this country, where the interval between death and burial is considerable, and the fear is almost a groundless one. Still, the conviction that such a fate is possible, which cannot be altogether denied, will always be a source of severe trial to some. *With cremation no such catastrophe could ever occur; and the completeness of a properly conducted process would render death instantaneous and painless, if by any unhappy chance an individual so circumstanced were submitted to it.* But the guarantee against this danger would be doubled, since inspection of the entire body must of necessity immediately precede the act of cremation, no such inspection being possible under the present system."

But from whatever standpoint we look at cremation, its great advantages over the present means of disposal of our dead must be evident. Now, there are 100,000 deaths yearly in London, and all these bodies may be said to be buried in the surface-soil around it (London); that is to say, during a period of thirty years there are 3,000,000 deaths. According to Sir Spencer Wells, a body becomes clay after twenty years' burial. If this be the case, there are always 2,000,000 bodies under the feet of those resident in the Metropolis and its suburbs, undergoing putrefaction, or, as he calls it, "*harmful decay*." If, then, as Dr. Lyon Playfair affirms, the earth "above the dead" is not sufficient to absorb the full amount of the putrid gases evolved, it must follow that the air breathed is

highly deleterious, and but too likely to add to and intensify the diseases allotted to man. Given the number of deaths at 100,000 yearly, in and near London, it is estimated that the amount of deleterious gases emitted by such a mass of putrefying bodies as that named above, is 5,140,160 cubic feet, the whole of which—bear in mind—beyond what is absorbed by the soil, must pass either into the water below or the atmosphere above.

To sum up, in the words of Sir Henry Thompson: "For the purposes of cremation nothing is required but an apparatus of a suitable kind, the construction of which is well understood and easy to accomplish. With such apparatus the process is rapid and inoffensive, and the result is perfect. The space necessary for the purpose is small, and but little skilled labour is wanted.

"Not only is its employment compatible with religious rites, but it enables them to be conducted with greater ease and with far greater safety to the attendants than at a cemetery. For example, burial takes place in the open air, and necessitates exposure to all weathers; while cremation is necessarily conducted within a building, which may be constructed to meet the requirements of mourners and attendants in relation to comfort and taste.

"Cremation destroys instantly all infectious quality in the body submitted to the process, and effectually prevents the possibility of other injury to the living from the remains at any future time. All care to prevent such evil is obviously unnecessary, and ceases from the moment the process commences."

In a word, the aim of cremation is to prevent the process of putrefaction in the dead, whilst it conserves the health of the living.

THE BORDER-LAND OF INSANITY.

BY

W. B. KESTEVEN, M.D. ST. AND., ENFIELD.

THE writer having for many years past been brought into contact with the undeveloped forms of insanity, has thought that hints as to their extent and means of arrest may not be uninteresting, albeit they lay no claim to novelty or originality.

Members of the medical profession are only too well aware of the existence of a numerous class of persons not recognised as lunatics, and not subject to legal restraint, but whose mental condition is such as to require medical supervision. These cases of incipient mental disease are sources of anxiety to their friends and their medical advisers, especially with reference to the enactments of the Lunacy Laws, as they are fraught with the danger of their infraction.

The importance can scarcely be exaggerated of early action in the treatment of these cases. The opportunity lost may lead to incurable mental disorder, involving present, and possibly future, generations in misery and crime; for it is well known that in a large proportion of suicides and homicides an early vigilance might have averted the catastrophe.

At the very outset, however, of the derangements, the medical attendant, in his endeavour to cope with them, has to encounter an obstacle. There is an almost innate aversion in the minds of a large proportion of persons to

admit the possibility of such an occurrence as insanity in their families. The bare suggestion will sometimes give offence, influenced by the superstitious feelings of past ages, that insanity conveys a stigma upon the character. Vagaries of conduct that should arouse the vigilance of friends are to be passed over as mere eccentricities. The more especially is this the case if there should happen really to exist an hereditary disposition in the direction of insanity. Any allusion to the fact is very likely to be pooh-poohed, with the cynical remark, "All are mad on some point!"

The conditions of life in modern civilization favour the development of all forms of Neuroses, and engender a psychological condition not far removed from mental disorder. That the nervous system is sooner exhausted than in past times is a fact with which medical practitioners are daily made familiar, and which has come to be recognised in the absolute necessity for a periodical holiday, to all engaged in the wear and tear of the battle of life, and which has taken concrete manifestation in the parliamentary enactment of "Bank Holidays," through the benevolent action of Sir John Lubbock.

One of the "outcomes" of this general morbid neurological condition is that of nervous dulness, which also is, doubtless, often due to hereditary causes.

"As we see external deformities produced and reproduced, generation after generation, by subjection of individuals to pernicious influences, so we see this nervous deformity produced and reproduced in certain families."

This condition of "nervous dulness" does not necessarily involve intellectual deficiency. The subject thereof may be "capable of reasoning, not directly injurious

either to his neighbour or to his own well-being, yet entirely insusceptible to the finer subsidiary vibrations of the mental processes which underlie every mental operation. It is quite possible for such a man to do wrong without knowing it to be wrong. At the same time, it may be almost impossible to prove this fact, as evidence from his previous actions tending towards that proof may be entirely absent."*

Arising, also, out of this diffused neurotic atmosphere, is the undefinable BORDER-LAND of insanity, the limits of which shade off by degrees into pronounced insanity. The entire unconsciousness on the part of most of the subjects of impending mental disorder, is the source of great difficulty in preventive measures. There may, however, be the very reverse conditon, that of a dread of insanity, in itself imaginary, the climax of hypochondriasis, and the source of melancholia. This state is pointed out by Dr. Bucknill as existing in King Lear: "Conscious of his mental state, and even of its cause, he feels the goad of madness already urging him, and struggles and prays against it, and strives to push it aside. He knows its cause to be unbounded passion, and that to be kept in temper would avert it:

> 'Oh, let me not be mad, not mad, sweet heaven!
> Keep me in temper; I would not be mad!'"†

Dr. Bucknill contrasts the melancholy of Lear, with that of Jaques, who "cherished his melancholy, but, if he had thought fit to do so, retained the power to oppose, if not to repress it. Herein," adds Dr. Bucknill, "is the psychical difference between the sane and the insane melancholist;" with the essential difference, that "in the

* "Nervous Dulness," by W. H. Kesteven, *Journal Mental Science*, July, 1882.

† Bucknill's *Psychology of Shakspeare*, page 146.

one case there are evidences of cerebral disease, which are wanting in the other."

Among the phenomena indicative of the approach of mental disorder, the most important to be noticed is a change of character and disposition, and the supervention of eccentricities and habits in contrast to the usual moral bearing of the individual, the intellectual faculties being not at all, or but slightly, impaired. These indications should not be disregarded or lightly passed over. "Among the changes of character, also, indicative of the approach of mental disease, is the occurrence of aversion and antipathy towards former objects of respect or affection; a change so painful to those toward whom it is manifested, that it is usually the earliest to be noticed, and one that should by no means be disregarded. The change may be gradual—so gradual, that it may pass unnoticed for some time, or be difficult of detection even when suspected."

A precursor of insanity is to be feared in the occurrence of a dreamy absent manner in a person usually possessing a clear and practical energy. Such a person shunning society, becoming reserved and given to talking to himself, is not unlikely to be soon the subject of morbid illusions, or even of delusions. The indulgence of emotions disproportioned to their relations, and of an ill-regulated fancy; the habit of exaggeration and distortion of circumstances, will not be long in effecting a transformation into kleptomania, lying, &c. The subject of hypnotic, spiritualistic, and mesmeric trance, is for the time on the verge of insanity, and by repeated practices of the kind comes dangerously near to, if not actually within, the limits of lunacy, as by repeated relinquishment of his will he gradually loses the control thereof over actions which his judgment would condemn.

Of all the neuroses that tend towards mental unsoundness, a very common and very intractable one is hysteria in its countless manifestations. We may here find the mimicry of almost all diseases, bodily and mental. The dominant feature of hysteria is feebleness or abeyance of will, superadded, very often, to general weakness of mind. The patient is the easy dupe of any stronger mind, the action of which upon the more feeble one is, happily, often sufficient to effect marvellous restoration to health; while, on the other hand, morbid fancies and illusions are more often thereby aggravated. We know that in the hysterical "fit" the patient may be partly conscious of what is passing around her, although she is without the power to adapt herself to surrounding circumstances. In the asthenic mind of the subject of hysteria, moral control, being feeble to begin with, soon becomes lost; fancy runs riot; the judgment is deposed from its supremacy; a moral twist soon becomes apparent; deceit and imposition become habitual; the love of exaggeration dominates her words and actions, until, it may be unconsciously, the girl allows herself in lying and slandering.

"Picking and stealing" are often added to her list of delinquencies. The distinction between badness and incipient madness is very hard to be made out in such instances. It is not here implied that every hysterical girl is in imminent danger of becoming insane, but that unsubdued hysteria is prone to carry the patient close to the border-land of insanity.

A well-known cause that favours this condition, and of which the writer has witnessed several examples, is the excessive strain put upon the minds of young females in the brain-work of competitive examinations. Boys have,

happily, a counterpoise to their brain-work in their athletic sports.

Of other causes that have come under the writer's observation—without the limits of actual insanity, but which have strongly tended to disturb mental balance—are, epilepsy; intemperance; ill-directed religious emotion; love of money and greed of gain; over-study; the puerperal state; cessation of menstruation. Among the most troublesome manifestations from these states, have been hypochondriasis, mental depression, melancholy, indolence, lying, kleptomania, erotomania, masturbation. Inordinate vanity, and uncontrollable temper, are states of mind which render the subjects thereof unfit for their domestic and social relations, while they may not actually be objects for legal control or restraint.

Where, as is often the case, there exists an hereditary disposition toward the neuroses, and toward insanity, the vagaries and eccentricities of such patients involve the oft-times perplexing question of certificates. The habitual drunkard, however, is the most hopelessly incurable and repulsive, though the epileptic is the most pitiable and most dangerous of all on the verge of mental disease; for of this come sudden, and seemingly unaccountably sudden, impulses to murder or suicide.

The practical point of the preceding observations is—What are the means to be adopted for the arrest of impending insanity?

They are simple, and may be summed up in a few words; but they must be carried out firmly, consistently, and persistently, to be efficient. They may be comprised under the following heads: *e.g.*, separation from all pernicious associations; bodily action and hygienic exercise; occupation of the mind by cultivation of the intellectual

faculties; but, above all, by firm moral influence and control.

The first and most important step is, the breaking off of those associations which may have engendered or fostered the morbidly neurotic condition. Under the heading of bodily exercise may be enumerated walking, horse-riding, gymnastics, gardening, &c. In hysterical cases, cold affusion and cold baths are effective measures. By occupation of the intellectual faculties, the mind ceases to dwell upon trifling ailments and sensations. The patient is taught to cease to regard himself or herself as the centre of all care and anxiety, while, by judicious moral and religious influence, the prospect of a life of usefulness again opens out, while despondency disappears with turning mental and bodily health.

Great is the labour and patience that must be bestowed upon the efforts to remove the state of morbid feeling, to restore moral self-control, to disperse the clouds of darkness and despondency, and ensure a return to the sunshine of hope and life on the right side of the BORDER-LAND OF INSANITY.

A FEW REMARKS UPON AACHEN (AIX-LA-CHAPELLE).

BY

E. P. PHILPOTS, M.D., BOURNEMOUTH.

HAVING made several short stays at Aachen whilst *en route* for the Rhine, opportunities were afforded me of inspecting the mineral springs and baths, and I was thus led to form a favourable opinion of them as remedies for rheumatism, as also to send several rheumatic patients there, most of whom derived benefit by going. Having broken down from a severe attack of lumbago and sciatica this year, I tried the effects of these waters upon myself, and thinking that there might be various points connected with my visit which would interest some members of my profession, I have thought well to write a short paper thereon. The waters contain chloride, bromide, iodide, and sulphide of sodium, the former in abundance; the sulphates of soda and potash, and the carbonates of soda, lithia, magnesia, lime, strontia, and iron; also an appreciable amount of free carbonic acid. They rise at a temperature of 135°, and have a mawkish sulphurous taste. I derived great benefit from their use; I drank them in large quantities, and bathed in them twice a day, the bath temperature being about 104°, and each immersion lasting about half an hour. As it is well known that Aachen has obtained a very great and just notoriety as a resort for patients suffering from secondary and tertiary syphilis, who come there from all parts of the

world for "the cure," it may interest some of the readers of this paper to be told something concerning this "cure." Possibly the waters aid it; but this is a doubtful point—at least, many persons think so. After the patients have been for half an hour in the sulphurous water, at a temperature of 95°, they are dried and rubbed with mercurial ointment for twenty minutes, professional rubbers being employed; about three drams of the ointment are used at one rubbing, and from twenty to eighty daily rubbings undergone, according to circumstances. These rubbings are usually commenced over the solei muscles; the next day the thighs are rubbed; then follow the abdomen, thorax, arm, fore-arm, back, and the solei are again commenced with. As soon as these rubbings are begun, a mouth-wash of alum, chlorate of potash, &c., is ordered for the patient, who is instructed to carry it in his pocket, and use it regularly every half-hour; and thus it happens that an enormous amount of mercury can be used without any symptoms of salivation or mercurial stomatitis appearing; but should these appear, the inunctions are stopped for a day or two, the bath being continued, and the rubbings recommenced as the mouth symptoms disappear. I am bound to admit that the result of this treatment is often marvellously successful, and one case I saw specially serves to illustrate this point. A gentleman I met there had been nearly twelve months under the care of two celebrated London surgeons, who are quoted as authorities on syphilis. He had syphilitic psoriasis badly—so badly, that when his London surgeon ordered him to Aachen, as a case almost incurable and most inveterate, he was unable to use either of his hands, or flex his fingers. After fifteen baths and rubbings, the psoriasis entirely disappeared

from his hands; he was ordered to have thirty more baths and rubbings, but business called him home to London, where I introduced him to an English medical man, who practises the Aachen system of cure, as far as it is possible to do so without the baths of the genuine mineral water, which latter is largely imported to this country to be drunk. Cases are cured at Aachen which have in England defied mercury taken internally, mercurial fumigations, iodide of potassium, arsenic, iron, and every remedy usually used. The waters are very useful in some cases of skin disease; and Dr. Schumaker ii., who greatly distinguished himself as a military surgeon during the Franco-Prussian war, and is now one of the leading practitioners in Aachen, and under whose kind, attentive, and skilful care I placed myself when there, has written (in English) some very clever articles, illustrative not only of this point, but of others of almost equal interest.

I think it but fair to those who may be sending patients, or going to Aachen, not to close these remarks without some allusion to a few points which struck me when there as a foreigner, and an English medical man. Aachen is a large commercial centre; the visitors, the waters, the baths, the medical details, all play second or third fiddle to the local industries; and there is a section of the residents who are absolutely opposed to visitors suffering from syphilis and skin disease coming to the city:—thus it happens that any enterprise calculated to attract invalids there is always more or less dwarfed. There is neither a club, casino, pump-room, or fashionable indoor place of meeting for visitors. The town band performs, during the summer, in some small public gardens, to which admission is obtained by subscription.

The hotels barely come within the limits of first-class, and the German style of living is hardly in accordance with English tastes. I stayed at the best hotel; the large doors, through which carriages drove into the court behind, led directly into the building, and, as they were nearly always open, the house was somewhat draughty and cold; whilst the absence of fires in, and the tiled uncarpeted floors of, the dining and smoking-rooms were not calculated to assist in curing rheumatism. The dwarfed German beds placed against the bedroom walls are uncomfortable for a restless invalid in pain. The meals were neither liberal, luxurious, nor varied; but the cost of living is fairly moderate, although wines are very dear. The temperature in the shade varies in spring as much as thirty degrees Fahrenheit during the twenty-four hours. Ten different nationalities were represented at my hotel table d'hôte, and it was amusing to notice that the conversation at dinner, after taking turns of a domestic, social, and political kind, invariably, with the *post-prandial* coffee and cigarette, resolved itself into the pathology, cure, and treatment of syphilis, the topic of the day with the majority of the diners. The Kaiserbad is a large building, within which the mineral spring rises; the upper part of it accommodates visitors taking the baths and waters, who can obtain their breakfast and luncheon on the premises, but who have either to go to a hotel to dine, or pay heavily for that meal to be provided in the house. It is fairly well arranged; but the temperature indoors was never up to 60° all the time I was there. The baths in the basement are about thirty in number, and are arranged in rows in a large tiled hall, which, from the heat of the mineral waters, is at a temperature of 74°. They are large, each one holding over three

hundred gallons of water; but it is a difficult matter to sit up to the neck in water of a high specific gravity, and some arrangement to support the bather, to enable him to float on the water, would be a great addition; and I found that the cold stone upon which my occiput rested frequently gave me a stiff neck. The dressing-rooms have tiled floors, and are scantily furnished; a couch, on which to rest after taking a hot bath, would be welcomed in them. A *peignoir* (bathing-gown) is provided, and one small towel, both of which smell so offensively of potash soap, that I advise each bather to bring and use his own, washed at home. The bath attendants are most attentive and obliging, and keep the baths clean and in good order. The environs of Aachen are for the most part devoid of interest; and, although "a winter cure" is spoken of by the hotel proprietors, I should imagine that the low temperature, coupled with the paucity of visitors and the dull monotomy of a life indoors, would all combine to depress any invalid on the one hand, and retard his cure on the other. I am, on the whole, bound to admit that I am a firm believer in the virtues of the mineral waters of Aachen, and should never hesitate to send patients to use them during the summer months; but should anyone thinking of trying them during the winter, ask my advice before journeying there, I should feel it my duty to enlarge upon some of the details (both for and against the place) which this paper contains.

Clinical Records.

A CASE OF HYPERPYREXIA FOLLOWING MEASLES, TREATED SUCCESSFULLY BY THE WET-PACK AND COLD DOUCHE.

By CHRISTOPHER ELLIOTT, B.A., M.D., Physician to the Bristol Hospital for Sick Children.

THE treatment of Hyperpyrexia by the cold bath has had many able advocates from time to time, more especially in connection with enteric fever; but beyond the record of a few isolated cases in the medical journals (so far as I can judge from the literature on the subject), not much attention has been paid to its treatment by the wet-pack. Apart from the fact that those who have had most experience with the cold bath are not agreed amongst themselves as to its safety or value, there is one drawback to its general adoption in private practice; viz., that a sufficiently large bath is not always to be obtained in the houses of our patients. Materials for a wet-pack, however, can be usually found; for all we require is a macintosh or a large piece of indiarubber sheeting, one or two blankets, a sheet, and a can of cold water. When the bed is a wide one, these may be placed in it by the side of the patient, and, if proper care be taken, he can be easily transferred to and from the pack without wetting the bed. Besides having a diaphoretic action on the skin, the pack calms the nervous centres, subduing restlessness, and causing sleep; but, notwithstanding that

it acts thus, I did not find that it could be relied upon by itself to cause a rapid and decided reduction of temperature, and for this reason I am in favour of following up its application with the cold douche. The nervous shock, which Dr. Cayley considers to be an important element in the cold bath treatment, can be communicated as efficiently in this way, and I believe with greater safety to the patient, as well as with far less trouble to the physician.

Another advantage of this combined method is, that we can dispense with the administration of medicines, which is no slight point gained, when the stomach is intolerant of almost everything that is put into it. The case I am about to bring forward would be more correctly described as one of measles complicated with pneumonia, internal otitis, meningitis, and hyperpyrexia. The pyrexia lasted over six weeks, during which time the temperature was twice above 107°, twice 106°, fifteen times between 106° and 105°, and altogether fifty-eight times above 103°. Without going into all the details, the case briefly was as follows:

M. E., æt. 5 years, was taken ill on March 12th, 1884, being one of five in a household attacked with measles. The disease appeared to be taking a mild course, as on the 17th (the fifth day of illness) the temperature was subnormal; but next day my patient complained of pain in the right ear, and on the following day I detected slight dulness, with fine crepitus, at the base of the right lung. The mischief in the lung steadily increased, until quite two-thirds of it was involved, and on March 21st the evening temperature was 105·2°. On the 22nd she vomited several times in the course of the day, and in the evening complained of stiffness in the neck. T. 105·6°,

R. 52. Next evening the temperature was again 105·6°, and there were rigors, and at the same time the child called out that she saw "two mothers and two nurses!" The double vision did not, however, last long, as it had quite passed away when I arrived shortly after, and I could not then detect any squint to account for it. On the following day there was a slight discharge of pus and blood from the right ear, but it ceased the next day. On March 26th the patient complained of nausea and chilliness, and again on the 29th.

On March 31st, as the temperature had been rising above 105° for the past few days, and having failed to reduce it by the administration of quinine, either by the mouth or in enema, as suggested to me by Dr. E. L. Fox, I determined to try if the wet-pack would assist me. The condition of the lung was all this time unchanged, and there were present also symptoms pointing to cerebral irritation, such as great fractiousness, sleeplessness, deafness, and frequent vomiting, followed later on by a well-marked internal strabismus of the right eye. I confess I felt somewhat timid at the first trial of the pack, and kept it on for only forty-five minutes; but although the period was too short, and there was no immediate reduction of the temperature, yet, five hours after, it had fallen from 105·2° to 103·2°, and there was less restlessness.

Next day, April 1st, the temperature being again 105·2°, I put my patient into the pack, and, without removing her, I ascertained at the end of an hour that the temperature was ·2° higher. I now administered four grains of quinine, and kept her in the pack for another hour. At the end of that time she vomited, but the temperature had fallen to 104·2° (=1·2°). Eight hours

after it was 103·2°, and all next day did not rise above 103·4°.

On April 3rd, at 4.45 a.m., the patient had a severe rigor, and vomited. T. 107·2°. Half an hour after, it had fallen to 105·2°; but nevertheless I employed the pack for an hour, and two hours after the temperature had fallen to 100·8°. In the evening, at nine p.m., the temperature had again risen to 105·4°, and I re-applied the pack for forty-five minutes. Three-quarters of an hour after the temperature had dropped 1·5°, and next morning was only 100·4°.

On April 5th, at midnight, the temperature was 106°, and, having been summoned, I put my patient immediately into the pack, and administered three grains of quinine. At the end of an hour she was taken out, having slept nearly all the time, and was then given some liquid nourishment, but immediately vomited it. However, the temperature had fallen over 2° (103·8°), and, notwithstanding that there was troublesome sickness for the next few hours, it continued to fall, and was 100·4° next morning at 10.0 a.m., nine hours after the pack.

In the evening of April 6th, however, it was again 106° at 10 p.m., and without delay I applied the pack. At the end of an hour I took the temperature and found it to be 107·2°; and as the quinine had caused such intense sickness the last time it was given, I now decided to keep my patient in the pack for two hours longer, and at the end of that time to apply cold affusion. This I did with a large sponge, douching the body from head to foot with cold water. I next placed her in warm blankets, and, taking the temperature, I ascertained that it had fallen nearly five degrees, being now 102·4°. This was followed by a sound sleep of seven hours duration, and next day

my patient's condition appeared changed for the better. On examining the chest, I found that the lung had almost entirely cleared up; but the squint was still very decided. On the following day a little pus began to flow from the right ear; but, although it continued for some time, it was never much in quantity. For over a fortnight longer the temperature fluctuated a good deal, and on two occasions gave me some anxiety, as it rose above 105°; but I did not find it necessary to employ the pack or douche again. Convalescence was also further delayed by the left foot and ankle-joint becoming painful and swollen; but, keeping the limb at rest on a splint with a foot-piece, this was got under, and ultimately my patient made an excellent recovery, losing all trace of the squint, and without any deafness or lameness.

ON DIPHTHERIA: WITH CASES.

By ALFRED SHEEN, M.D., Senior Surgeon, Cardiff Infirmary.

DIPHTHERIA, like its ally, scarlet fever, is a treacherous disease which always rivets our attention when we have it to deal with, and is invariably a source of great anxiety to us in our efforts to promote recovery. Having, some time ago, had a series of cases in one family, with many points of interest arising out of them, perhaps a history of these cases, with some remarks bearing upon them and upon the disease in general, might be deemed worthy of consideration.

I will first give the cases as briefly as possible:

I. Mary R., æt. 5½. I was called to see this child on Monday, June 24th, at 9 a.m. It was lying on the sofa with its head thrown back, eyelids half-closed,

mouth open. The breathing was roughened, and there was occasional cough and some restlessness. Offensive odour with the breath. What examination of the throat could be made revealed blue-greyish thickened patches on the tonsils and all parts of the back of the throat which could be seen. Child quite sensible. P. 148, T. 103·4°.

℞. Potass. Chlorat. ʒiij, Glycerin. ʒiij.
Aq. ad ʒvj, ʒss. every 3 hours.
℞. Tr. Aconit. ♏xxx, Aq. ad ʒiv.
ʒi. every ¼-hour 4 times, then every ½-hour.

2.30 p.m. P. 148, T. 102°. Child no better.

8 p.m. P. 160. Consultation suggested.

9.30 p.m. P. 160, T. 104·4°. Dr. Taylor saw the patient with me. He concurred in the treatment, and suggested the addition of a spray of sulpho-carbolate of soda, 4 grs. to the oz. The child gradually got worse, and died at 5 a.m. on the 25th, from asthenia, and not from suffocation.

This child, a particularly robust and healthy one, was taken ill on the previous Wednesday, but was out on Saturday; and apparently had no throat symptoms till Sunday night, 10 hours before I was called in, when raucous breathing and a cough of a peculiar character came on. The eldest child was just recovering from what was deemed a slight illness with sore throat, which was treated solely by domestic remedies.

The family consisted of a father and mother; children aged respectively about 9½, 8, 5½, and 3; housemaid, cook, and nurse; and only two of these escaped throat illnesses, namely, the mistress and the nurse.

On the death of this child, the whole family, except

the master, housemaid, and cook, went away for 8 or 9 days, and the rooms were thoroughly disinfected.

II. Mr. R. June 30 (Sunday), 5 days after the death of No. 1. Consulted me this morning, complaining of soreness of the throat, so slight that he would have taken no notice of it under ordinary circumstances. There was nothing abnormal to be seen about the throat, and the pulse and temperature were normal. I advised him to see me again in the course of the day if he was not better. He came again in the evening, saying that he did not feel so well; that he had been shivering during the afternoon, and that he was afterwards hot. P. 108, T. 101·4°. Throat slightly congested, no patches; tongue coated. Is evidently frightened. Sent him home and to bed. To take the following:

Pulv. Ipecac. gr. 30., s.s.
℞ Tr. Aconit. ♏32, Aq. ad ʒiv.
ʒi every ¼-hour four times, then every hour.

July 1st. In bed; not complaining, but trying to convince me there was nothing much the matter with him. The powder made him vomit once. P. 94, T. 99·6°. Slight ulceration in back of pharynx, tonsils and throat slightly congested, no appearance of diphtheritic patches.

6 p.m. Got up after I left him this morning. Has taken the 32 doses of medicine. P. 80, T. 101·6°. Tongue clean and moist. Throat feels more sore, but remains the same in appearance. Has no other feeling of illness whatever.

℞ Liq. Ferri Perchlor. ʒiv, Potass. Chlorat. ʒij.
Glyc. ʒiij, Aq. ad ʒvj.
ʒss. every 2 hours in water.

July 2nd. 11 a.m. P. 88, T. 99·6°. Throat less sore. A

few white specks on the tonsils, the size of a pin's head; some moved away by gargling water, others fixed. Feels perfectly well in other respects.

8 p.m. P. 82, T. 100·4°. Rep. mist.

July 3rd, a.m. P. 80, T. 97·4°. Feels all right. Throat slightly congested, no patches. Is going to his office in a cab.

Mist. three times to-day, twice to-morrow, and then stop.

III. Housemaid, July 6th. Sore throat and malaise, with foul tongue, and pulse 100. Treated by iron and chlorate of potash, and was well again in 4 or 5 days. No patches on throat.

IV. E. R., æt. 3. July 8th. Almost suddenly ill with sore throat, thirst, and general malaise. Tonsils and throat congested, two white patches on former. P. rapid, T. 100·4°. In bed.

℞ Liq. Ferri Perchlor. ʒij, Potass. Chlorat. ʒi.
Glyc. ʒij, Aq. ad ʒij.
ʒi. every 2 hours in water.

10th. Rep. mist. every 4 hours. Temp. normal yesterday. The spots have disappeared, and the child seems much better in every way, taking her ordinary food, and running about.

August 13th. Diphtheritic patch on left tonsil, size of threepenny-bit. P. 120, T. 102·2°. Was running about in the garden half-an-hour before I saw her, at mid-day.

℞ Liq. Ferri Perchlor. ʒij, Potass. Chlorat. ʒi.
Glyc. ʒij, Aq. ad ʒvj.
ʒss. every 2 hours.

14th. P. 108, T. 100·4°. Seems better. Rep. mist.

15th. T. 98·4°. Tongue patchy. Throat clearing. Was in bed yesterday, but to-day is running about in the nursery. Mist. every 4 hours.

16th. P. 120, T. 103°. Ill again since last night. Right tonsil swollen, and a large patch on it. Some outside swelling of neck. Mist. taken every two hours since last night.

17th. P. 96, T. 98·4°. Thick whitish patch on right tonsil, loosening. Outside swelling lessened. Child much livelier. To stop in bedroom. Medicine every two hours to-day, every four hours to-morrow. Ordinary food to-morrow.

19th. Doing well. Patch peeling off tonsil. P. and T. normal.

20th. Patch off. Rep. mist. t.d.s.

V. W. R., æt. 8. Attacked Aug. 8. Called to him at 11 p.m. P. 132, T. 103·2°. Headache. Throat not complained of till asked about it, when he said he had slight pain on swallowing. Tongue clean, dryish. Small whitish patch on each tonsil.

℞ Potass. Chlorat. ʒi, Liq. Ferri Perchlor. ʒij. Glyc. ʒij, Acid. Hydrochl. dil. ʒi, Aq. ad ʒvj. ℥ss. every 2 hours.

Aug. 9th. Patches much extended on tonsils, which are swollen. Says his throat feels worse. P. 120, T. 102·6°. *Vesp.*, P. 120, T. 101·4°. Patches greenish, dirty-looking, separating. Has vomited 3 or 4 times. Cont. mist.

10th. P. 92, T. 98·8°. Remains the same. Cont. mist.

11th. P. 96, T. 99·2°. Seems better himself, but speaks more thickly. Outside of neck below angle of jaw much swollen (not so much as last night, the nurse says). There was slight glandular swelling there yester-

day morning. Bowels relieved by an enema. Cont. mist.

12th. P. 96, T. 98·8°. Outside swelling less. Throat patches separating. Meat for dinner yesterday. Takes his food much better, also fruit. Cont. mist.

13th. P. 96, T. 98°. Throat clear of patches, leaving irregular depressed surfaces on each tonsil. Outside swelling much less. Mist. every 4 hours. (Another child now ill, No. IV.)

VI. The cook. Seen on Aug. 9th, the day after first seeing No. V. Found her in bed, complaining very much of her throat. Has been out of sorts for a week. Would not have stopped in bed, only "her head ached very much, and she felt so giddy." T. foul. P. 116, T. 101·4°. On the tonsils there are greyish-looking patches.

℞ Tr. Aconit. ♏32, Aq. ad ʒiv.
ʒi. every ¼-hour four times, then every hour.

10th. P. 112, T. 102·4°. Perspiring. Feels no better.

℞ Liq. Ferri Perchlor. ʒiv, Potass. Chlorat. ʒij.
Acid. Hydrochl. dil. ʒij, Aq. ad ʒvj.
ʒss. every 2 hours in water.

11th. Eight doses of medicine taken. Feels much better. Right tonsil not so much swollen, but it and the left tonsil have greyish and greenish-grey patches. P. 72, T. 98°. Feels very hungry. To get up and have her ordinary food. Mist. every 4 hours.

12th. Up. Throat quite clean. Feels well, but weak.

Quinine gr. i. thrice daily.

Remarks.—Diphtheria, as we know, is a constitutional disease, acute and specific, with local manifestations chiefly

referable to the throat and air passages. It is infectious. But the intensity of the infection is variously stated by writers on the subject; some saying that actual contact of a mucous membrane with the discharges from the throat is necessary to convey the disease, whilst others assert that the poison clings tenaciously to houses and rooms for an indefinite period. I am inclined to adopt the first view. I think that the contagiousness of this disease is limited, and that there is but little risk, provided that proper precautions are taken to ensure immunity from contact with septic discharges and with the breath of the patient. In cases that have been put down to the poison clinging to houses and rooms, is it not likely that the cause may have been the continuance in operation of the cause which gave rise to the first case? I think this more than probable.

As to the *causes* of diphtheria, Dr. Wilson, in his *Handbook of Hygiene*, says: "There are good grounds for believing that the disease is sometimes originated by impure water, or defective sewerage." And a writer, some few years ago, in the *British and Foreign Medico-Chirurgical Review*, in reviewing the whole subject, states that "the proofs that it and enteric fever are both dependent on sewage gases, or what escapes from them, are very much the same."

Assuming that the disease is contagious, and that defective sewerage arrangements have something to do with it in many cases, where was the cause of this particular outbreak to be found? I believe that No. I, or rather the previous case which I did not see, was the first case that had occurred in the town for some time; there was, therefore, no epidemic, and enquiry failed to elicit the exposure of any member of the family to infection.

Then the drainage, the drinking water, and the milk supply, naturally occurred to one. The milk vendor supplied many other families, and in no single instance could it be ascertained that there was any specific disease in such families. The water arrangements of the house, so far as one could judge, were not at fault; and the W.C. arrangements were, on enquiry, repeatedly *said* to be in perfect order; but, after much questioning, I elicited this fact, that, at times, there was undoubtedly a very offensive smell from the W.C. Now, taking this fact in connection with the fact that the W.C. door was close to the nursery door, at the end of a longish dark passage without ventilation, and that the master of the house, impressed with the necessity of a thorough and constant current of air through the W.C., kept the *door* as well as the window constantly open—thus ventilating his W.C. through his nursery!—I don't think we have far to go for the cause of his diphtheria, more especially when it is considered that his house was situate in a street notorious for outbreaks of zymotic disease. The fact that the W.C., under such an arrangement, was more frequently ventilated *through the nursery* than through the window, was patent enough to my friend when I explained it; but still "he was not happy." A veritable St. Thomas, he wanted proof positive as to such a state of affairs having anything to do with his diphtheria as a cause. I could only reply that in many cases, where *positive* proof could not be obtained, we might equally rely on *presumptive* proof, and that, to my mind, there was quite sufficient presumptive proof that the defective W.C. arrangements in his house caused this outbreak of diphtheria. (A subsequent examination of the W.C. proved that its condition was about as bad as it could be.)

Let me state briefly the sequence of cases:

1.	F. child, æt. 9½	No medical attendance		Recovered
2.	do. æt. 5½	Ill June 20th	to 25th	died
3.	Master	" " 30th	to July 3rd	Recovered
4.	Housemaid	" July 6th	to 10th	"
5.	F. child, æt. 3	" " 8th	to 9th	"
	(Relapse)	Aug. 13th	to 15th	
	(")	" 16th	to 20th	
6.	M. child, æt. 8	Ill " 8th	to 13th	"
7.	Cook	" " 9th	to 12th	"

The room in which the child died was thoroughly disinfected, and the whole family, except the master, housemaid, and cook, went away for a week about the 27th or 28th of June. It may be interesting to note that the next two persons attacked were two of the three left in the house; also, that the other members of the family remained free from any signs of the disease until two or three days after their return home. This would seem to point to some common cause for each attack, as also would the curious fact that there was an interval of more than a month (from July 9th to Aug. 13th) during which there was no diphtheria in the house. This was most fortunate, although I am unable to explain it; for the mistress of the house was prematurely confined (8 months) on July 24th, the child only living about 24 hours. She did well, although her convalescence was not so rapid as on previous occasions.

How are we to differentially diagnose diphtheria? I believe in many instances it is exceedingly difficult to do so, and I believe that not unfrequently mild cases of diphtheria occur, which are simply called "sore throat." The series of cases I have here detailed was undoubtedly

diphtheritic; but had Nos. 2 and 3 occurred as isolated cases, would any one have called them diphtheria? I doubt it. As occasional aids to diagnosis we have the occurrence of albumen in the urine during an attack, and the more rare occurrence of paralytic symptoms as a sequel. Some physicians, I believe, go so far as to say that albumen in the urine is the one diagnostic point in diphtheria. In case No. 5, I tested the urine for albumen several times, with a negative result; but a week after convalescence had set in, the patient suffered from paralytic symptoms referable to the throat, for which he was put on a four weeks' course of iron and strychnine, and he was well. In Quain's *Dictionary of Medicine* it is stated: "The general symptom never absent is *prostration of strength;* and the local symptom, absent only when the patient dies before there has been time for its formation, is the formation of false membrane." This series of cases will scarcely bear out such positive statements.

As to *treatment* I shall say but little. We have a zymotic disorder, gravely impressing, as a rule, the blood and nervous system, with local manifestations in or about the throat. We must deal with these, and we must avert the tendency to death which is by asthenia or by suffocation. *Aconite*, admirable as it is as a remedy in many inflammations (and its ability to reduce the pulse and temperature is well shown in case 2), is of no use here in the general treatment. The *perchloride of iron* appears to me to be the most valuable remedy we can find to meet the indications in this disorder. But it is no use fiddling with it. It must be given in large doses, frequently and regularly repeated, as we would give it in erysipelas, or it is of no use. Of course it is also of importance, as it is in so many acute diseases, that we see

the case early, if we are to be successful. All the cases I have here related were treated in this way, and with the iron I combined chlorate of potash. Frequent feeding with nourishing food was also part of the treatment. I think I have reason to be contented with the treatment adopted, as no case lasted more than six days, and all recovered well except the first case. No local treatment whatever was adopted, and I believe if we see the cases early, and treat them energetically, we shall have no occasion for such treatment. A good *emetic*, if given early, is reported by some to put a stop to the disease—to cut it short. In November, 1881, I published a case in the *Lancet* which would seem to support this view; but it is not safe to draw conclusions from one case. An emetic, if the case is seen early, can do no harm, and I should always be inclined to prescribe it. I tried it in case 2, but with no apparent effect.

Lactic acid and *sulphurous acid*, in spray, have been favourably spoken of in the local treatment of the throat symptoms; the former, given early in the disease, with the view of dissolving the false membrane. Of these, as of *tracheotomy* later on, to avert the tendency to death by suffocation, I have nothing to say from personal experience.

In the treatment of any disease, where we feel the ground somewhat uncertain, we are apt to use a number of different remedies, and where recovery ensues it is impossible to apportion the share which such remedies may have had in favouring the recovery of the patient. The bias of a man's mind will often influence him in forming his opinion, and, like the man who foreswore water with his whiskey because he only got drunk when he took them mixed, he is not unlikely to give the credit to the

wrong remedies. I have no doubt that it is in this way that so many remedies get lauded in the treatment of disease, only to be afterwards discarded as useless. There is great advantage in our medicinal treatment being as simple as possible; for then, where the result is recovery, we are in a better position to appreciate the value of remedies. The bearing of these remarks will be seen in the cases I have here recorded. The treatment was simple and almost single, and, therefore, so much the more useful to one in thinking over matters afterwards. In these days of scepticism about everything, I fear we are too sceptical about the value of drugs in the treatment of disease.

CASE OF ATTEMPTED SUICIDE, BY PRECIPITATION FROM CLIFTON SUSPENSION BRIDGE.

By J. FENTON EVANS, M.B., House Surgeon, Bristol Royal Infirmary.

S. A. H., æt. 22 years, single, machinist, was admitted to Ward 16 on May 8th, at 2.0 p.m., having fallen from the Clifton Suspension Bridge about three-quarters of an hour previously. On admission the patient was exceedingly collapsed, pulseless at both wrists, face pale and anxious, lips livid. She could, however, be roused to give her name, and attempted to sit up, but sank back and nearly fainted. On being placed in bed, complained of pain in the chest, and of the extreme coldness of her limbs. Hot bottles and blankets were applied, and brandy swallowed without difficulty.

The condition of collapse, with weak pulse and constant shivering, persisted in a marked degree for about one hour after admission, the cardiac sounds being distinctly

audible, but the heart's action weak and rapid. When the patient was sufficiently recovered to permit of more careful examination, the following injuries were made out:—Both lips slightly bruised; blood stains around mouth; separation of the first and second pieces of the sternum, with displacement forwards of first piece; tenderness and prominence over eighth and ninth right ribs, three inches in front of their angles; much bruising over both buttocks and back of thighs; feeble breathing over right lung as compared with left. No effusion of blood could be discovered at the nose, ears, mouth, or beneath the conjunctivæ. The pupils were equal, and acted to light somewhat sluggishly. No strabismus. No signs of the involuntary evacuation of the contents of the bladder or the bowel. At 4.0 p.m. respirations 36 per minute, pulse 120, weak. At 4.30 p.m. vomiting of fluid containing streaks of red blood.

May 9th. Patient has been delirious, and very restless all night. Axillary temperature 99·2, respirations 22, pulse 108, and stronger than yesterday. Limbs warm, colour in face and lips. No vomiting since yesterday afternoon, and no urine or motion passed since admission. Patient appears to-day to have fairly recovered from the shock, but talks incoherently from time to time, and has evidently no idea where she is, although in a ward with eleven other patients.

At 1 p.m. Twenty-four ounces of urine drawn off by catheter. Acid. sp., gr. 1017, albumen, $\frac{1}{6}$; on microscopic examination, found to contain numerous blood casts and blood corpuscles, white and red.

May 10th. Restlessness and delirium continue, although not so severe as yesterday. Vomiting during the night. This morning, pulse 96, respirations 28, temp.

98·4. Patient takes liquid nourishment readily. Voluntary micturition since yesterday: *urine*, acid. sp., gr. 1015; albumen, a trace; blood cells and blood casts present.

May 11th. Patient passed a very good night, sleeping for five or six hours. She is much more rational to-day, recognising her friends and those about her. Has asked who brought her to the Infirmary, and why; but has made no allusion to the real cause of her injuries. *Urine* to-day free from albumen and blood. Bowels moved for the first time since admission; no blood in fæces.

May 13th. Improvement continues.

May 27th. Patient is now quite convalescent, and able to walk without pain. There is apparently no permanent injury, beyond slight protrusion at the junction of the first and second pieces of the sternum. An examination of the tendon and skin reflexes reveals nothing abnormal.

Remarks.—The height of Clifton Suspension Bridge above the river at low water is about 250 feet, and the time any weight takes to fall that distance is about four seconds (leaving the resistance of wind, &c., out of the question). The time taken by this girl to fall from the bridge was probably much longer, not only on account of the resistance offered by the "rather high wind" blowing at the time, but also from the nature of her clothes, which are said to have been inflated from below, and thus delayed the descent. She was also reported to have fallen on the buttocks, which statement was supported by the condition of her clothes on admission, and the bruises subsequently discovered. A point of some interest is, that the patient's memory is now a complete blank as to what occurred after reaching the bridge, although she can remember setting out from home with the intention of

destroying herself in this manner. Of the sixteen persons who have hitherto attempted suicide from this bridge, this girl alone has survived the consequences of the act; one other was picked up alive, and survived twenty or thirty minutes. As far as the writer knows, no case of survival after a fall from a height of 150 feet has hitherto been recorded; this instance of recovery, after a fall of nearly 250 feet, is probably unique.

RUPTURE OF THE AORTA. By AUGUSTIN PRICHARD, F.R.C.S.

I was sent for in the afternoon of April 4th to see Mr. A. B. C., one of my ordinary patients, who was described in the message as being very ill. He was 58 years of age, moderately stout, but pallid in complexion, a very temperate man, leading a regular life. He generally walked down into Bristol from the farther side of Clifton, and back again, but took very little other walking exercise beyond his garden; and he drove about the country not unfrequently. He had been subject to an occasional fainting fit, and to severe attacks of colic; but for a considerable time he had been free from either of these ailments. He was one of a large and healthy family, and his father and mother are still living.

On the 2nd of April he went down to Bristol as usual, and walked back again, and was apparently in his ordinary health. On the 3rd, he dined on fish, eating a small hard piece of roast beef afterwards, rather to keep company with others at his table than from any desire for more food; and he spent the evening as usual, and went to bed in very good spirits, and apparently well.

In the middle of the night, he was turning round in

bed, when he felt something give way in his chest, and said he had strained himself. He became sick and faint, and continued so until I saw him, about four o'clock in the afternoon. He was then vomiting a thin bloody fluid, and had been able to keep down no nourishment; he was cold, and rather collapsed and restless, throwing his arms about like a patient suffering from the effect of hemorrhage. Under the idea that he was suffering from one of his old attacks of colic, I prescribed for him a calomel pill, and some bismuth. He was not sick again after taking the pill, and he said he felt much better, and took some light nourishment. He took his bismuth mixture once in four hours, until one o'clock in the morning of the 5th, when he said he was better, and got out of bed easily. When he was visited, at eight in the morning, he was found dead, and beginning to get cold; but the dose of his medicine due at five a.m. had been taken, and he had put out the candle (at that time in the dawn of the morning), and returned to bed, and had apparently died quietly in his sleep.

P. M. E.—There was a large quantity of fat about the body. The lungs were healthy; the pericardium was found to be distended with an enormous coagulum, surrounding the heart on all sides; and, when it was turned out, a rent in the convexity of the arch of the aorta, just at its commencement, was discovered. The rupture was an inch and a quarter long, and very ragged through the external and middle coats of the vessel; but the division of the inner lining coat was a clean, straight line, as if it had been cut. There was no special dilatation of the artery, but it was remarkable for the thinness and softness of its tissue, and some very small white spots, apparently fat, were deposited on the inner surface.

There was no sign of a general atheromatous state. The heart was very large and flabby, and much loaded with fat externally. The valves were healthy, but the right ventricle was dilated, and its walls much thinned, so that, on a section, the divided muscular fibre formed a very thin layer, compared with the stratum of fat on the outside; and some parts of the fleshy tissue were of a white colour from fatty degeneration. The other organs, as far as they were examined, were sound.

I believe that the first rent in the outer coats of the aorta occurred when the patient was turning round in bed (and he had tenderness, on pressure over the part, when I saw him), and the sickness followed. The blood which escaped from the stomach could have had no direct source in the ruptured vessel, but was due to the straining efforts to vomit, and these efforts were induced by the laceration. It is probable that a little leakage was going on into the pericardium all the time from the first attack of pain, and that soon after he got back into his bed, at five o'clock in the morning, the inner membrane of the aorta gave way by a sudden split, and he died immediately.

CASE OF RUPTURED AORTA. By J. PAUL BUSH, late House Surgeon, Bristol Royal Infirmary.

W. H., æt. 18, a postman. The patient had been rowing, but had ceased for some considerable time, and was sitting down in the end of the boat. His companions suddenly noticed he was looking very ill; he at once lay back in the boat, and appeared to gradually sink. He was landed within a few minutes, but then appeared quite dead. This could not have been more than four or five minutes after he was first noticed to be ill. He

had made no complaint whatever, and had been doing his work as a postman up to the day of his death. There was no history of rheumatism, or of any other previous illness.

P. M. E.—There was nothing particular to note, excepting in the heart and great bloodvessels. There was no blood whatever in the pericardial cavity. The *heart* weighed (with the portion of the aorta attached) 14 oz. The muscular walls, the valves, and orifices all appeared perfectly healthy.

A rupture through the internal and middle coats of the aorta was found. This rupture appeared to have started from a point immediately above the anterior aortic valve, which spot would correspond to the free edge of the cusp when the valve was driven back during the systole.

The rupture, starting from this point, had spread round the aorta in a slightly ascending and spiral direction, and terminated not more than a quarter of an inch higher than the level of its starting point. It had extended one complete circumference and a quarter. This rupture, in depth, extended through the elastic coats of the aorta, and had dissected the fibrous coat of the vessel to the extent of half an inch in an upward direction, and downwards this separation of the coats reached as far as the origin of the aorta from the ventricle.

There was a small amount of blood effused into this new channel. Sections of the aorta and heart substance were found, on microscopic examination, to be normal in appearance.

Notes on Books.

The Regimen to be adopted in cases of Gout. By Dr. WILHELM EBSTEIN. Translated by JOHN SCOTT, M.A., M.B. Pp. 68. London: J. & A. CHURCHILL. 1885.

THE aim of the Essay is to deduce rules of practice from pathological facts and theorems. Wherefore, at the beginning the pathological basis is laid. This consists largely in cuttings from the author's treatise on Gout. The pathological introduction is scientific; it is readable and interesting, and asks for assent to no more than can be reasonably supported by scientific evidence. The pathological standpoint may be thus stated: Gout depends upon an increased production of uric acid *in anomalous situations*—a peripheral formation of uric acid in muscles and the medulla of bones—with secondary affections of joints, kidneys, and organs of circulation. The increased formation of uric acid depends on *predisposition*, probably always inherited. This view is taken in opposition to the theory that gout depends on retention of uric acid from defective elimination through the kidneys.

Wherefore, the author gains the first indication for treatment; viz., to procure a reduction of uric acid formation in general, and thus to prevent the particular production in anomalous situations.

The rest of the Essay is devoted to a consideration of the regimen best suited to the gouty, especially in the prophylaxis of gout. Food—its nature and quantity; drink—alcohol, water, &c.; baths; clothing; exercise—each of these topics is carefully and temperately discussed. In speaking of food, the author combats the generally received notion that fat is bad for the gouty; he advocates the use of fat, for the reason (amongst other reasons) that it does not provoke dyspepsia, but, on the contrary, often relieves dyspepsia when substituted for part of the starch in a diet which has been too starchy. On the whole, the regimen advocated is an easy and comfortable one; and its adoption would tend, in our opinion, to make many unfortunates to rejoice who have hitherto led miserable lives in the endeavour, unsuccessfully, to prevent in their bodies the formation of any uric acid at all. The author

goes well to the root of the matter of prophylaxis, for he enjoins on gouty parents the duty of attending at an early period to the dietary and training of their children.

The value of the book is enhanced, and it is made more readable, by placing at the end of the Essay, as "Additions and Illustrations," discussions on scientific questions which arise in the course of the text.

The Translator has done his work admirably.

Diagnosis and Surgical Treatment of Abdominal Tumours. By Sir SPENCER WELLS, Bart. Pp. 216. London: J. & A. CHURCHILL. 1885.

The Revival of Ovariotomy. By Sir SPENCER WELLS, Bart. Inaugural Address read before the Midland Medical Society. 1885.

IN the face of some recent controversy as to whom merit is chiefly due in establishing Ovariotomy among justifiable surgical operations, it is a significant fact that the Midland Medical Society should have invited Sir Spencer Wells to address them in Birmingham. From Birmingham chiefly have arisen the protests against the claims of Sir Spencer Wells to this position, and we can scarcely avoid the conclusion that this Address was intended to be reckoned either as a defence of an assailed position, or as a pæan after an accomplished triumph.

If it be not true that Sir Spencer Wells has insufficiently recognised the claims of Charles Clay, of Manchester, it is clear enough that he has simply ignored the work of Lawson Tait, of Birmingham. Most of us would have supposed that no work on the surgery of abdominal tumours would be complete without some reference to the labours of Tait: Sir Spencer Wells does not even mention his name.

We have always considered that Clay has not received justice at the hands of Wells. In 1873, Peaslee, of New York, a writer to whom neither bias nor want of knowledge can be ascribed, thus wrote of Clay's work: "To Dr. Charles Clay, of Manchester, however, more than to all other operators, the credit belongs of having placed the operation of ovariotomy on a sure foundation. Fehr calls him 'the original herb' of this operation. . . . . He at length overcame, in a great degree, the opposition in England to ovariotomy, by his fairness in reporting his cases, his scholarship, and especially by his success." Up to 1850, eight years before

the date of Wells' first operation, he had operated thirty-three times with twenty-one successes, a mortality less than Wells had in his first thirty-three, not finished till twelve years later. Wells complains that Clay did not sufficiently make public his cases. He certainly did not publicly say in the weekly journals that he wished to be an ovariotomist, and that he would faithfully publish the results of all the cases his brethren might send him; but he made no secret of his work. He contributed more than one hundred papers to various periodicals, and wrote several large professional works. As far as the labours of a mere man can go, surely this was enough. Many able scientific men are too modest and retiring to put themselves forward as pioneers in any walk. They set about their work quietly and silently, because they do not court publicity; they are late in reaping their rewards, or even die unappreciated. Sir Spencer Wells has, of a surety, reaped his reward while yet alive. We are not sure that Wellington would have added to his fame by the delivery of a lecture to prove that he was a great warrior; and we scarcely think that Wells has added to his repute by this Address, proving himself a great ovariotomist. Amidst all this talk our mind wanders to the Northern Metropolis, where another ovariotomist, greater than them all in daring and in success, has failed to reap the titles and rewards which were undoubtedly his due, simply because he has been too silent, from too much modesty.

We have as little sympathy with those who seek to minimise the reputation of Wells, as with those who seek to exaggerate it. If much of his practice has been bad, it has abundantly taught us to avoid it; if any of it has been good, we have been fully informed of it. In either case, we must regard him as a benefactor to our race.

Of the book itself, little need be said. It is essentially a fourth edition, much cheapened, of his well-known work. Some chapters have been suppressed, and new chapters on new operations have been added. The value of these new chapters is much diminished by the writer having completely ignored the work of Tait. Lastly, we confess we do not like the tone of the preface.

Transactions of the American Surgical Association. Vol. II., 1885. Pp. 531. Philadelphia: BLAKISTON & CO.

JUDGING from the contents of the handsome volume now before us, we augur a brilliant future for the young American Surgical Association. There are some six and twenty original

papers collected here, with short reports of the discussions which they gave rise to. Some of these papers are of quite unusual excellence, and there is not one which is unworthy of the position and the permanence which this publication must give. The first paper, on "Wounds of the Intestines," by the late Professor S. D. Gross, was read by Dr. Richardson, while the "Nestor of American Surgery" was on his death-bed, and is characterised by the usual thoroughness and insight of this master in his art. Papers on Anæsthetics; on surgical interference in Cerebral Abscess, in Epilepsy, and in Insanity; various clinical investigations on different subjects; and some valuable original studies, follow and make up the volume. Among the original memoirs, we must mention one by Dr. N. Senn, of Milwaukee, on "Cicatrization in Blood-vessels after Ligature," as being quite the most important recent contribution to our knowledge of this all-important subject. Altogether, it would be difficult to select from among the numerous "Transactions" of our various societies one which could surpass or even equal in practical value this one of the American Surgical Association.

Stricture of the Urethra and Urinary Fistulæ. Fourth Edition. Pp. 254. By Sir HENRY THOMPSON. London: J. & A. CHURCHILL. 1855.

How many men can say this of the fourth edition of their work?—"I have *reduced* the bulk of the work by upwards of a hundred pages." The pruning knife has not injured the vitality of the tree, nor impaired the quality of the fruit. In every respect, this edition is an improvement on the work which had already become a classic. Few surgical writers have surpassed Sir Henry Thompson in collecting and arranging facts; and, probably, none have excelled him in copious versatility in drawing therapeutical indications from these facts. But most of all do we admire his methods of classification and description. There is here none of the laxity of the mere bookmaker; each subject is clearly cut out from its neighbour, placed in its proper position, and described in simple, elegant, and concise language. All this means labour, bestowed, probably, with less stint than most of us would believe; and we are grateful to the writer for this labour, for it increases our power of understanding the subject, and lightens our efforts in studying it.

Extra-uterine Pregnancy. By JOHN S. PARRY. Pp. 276. London: H. K. LEWIS. 1876.

THIS admirable work, by a Philadelphia physician, published nine years ago, is probably the best monograph on Extra-uterine Pregnancy in existence. The labour bestowed upon it must have been immense. The work is based upon a collection of no fewer than five hundred cases, and these by no means exhaust the literature which the writer has waded through and sifted. Now that the question of operative treatment in extra-uterine pregnancy is coming prominently to the front, this work of Dr. Parry's must come to have a new and increased importance. The surgeon, anxious to be familiar with everything that is known concerning a condition for which he may, at any moment, be called upon to operate, will find exactly what he wants in this book. For the recent advances in treatment by Laparotomy, he must have recourse to scattered records. A new edition would be gratefully received.

Common Injuries to Limbs. By E. COTTERELL, M.R.C.S. Pp. 108. London: H. K. LEWIS. 1885.

WE have nothing but good to say of this little work. It gives thoroughly trustworthy accounts of the common minor injuries to limbs, with exceedingly sensible remarks on the best modes of treating these. The common and pernicious habit of over-resting joints after injury is pointed out and condemned, and clear instructions are given to prevent the stiffening of joints that is thus begotten. Many useful hints are given for the treatment of such injuries as Colles' fracture; lawn tennis leg, elbow, and arm; fracture of the tip of the olecranon, and so forth. The remarks about bone-setting are practical and to the point. We can see that the author has well thought over as well as scientifically treated these every-day injuries, and he has produced a work which is well worthy of perusal.

Text-Book of General Botany. By Dr. W. J. BEHRENS. Translation from the second German Edition, revised by P. GEDDES. Pp. 374. Edinburgh: Y. J. PENTLAND. 1885.

THE excellence of Dr. Behrens' Text-Book on Botany is well known. We have only to say a word in praise of the manner in which the translator (Miss Harris Smith) has done her

work, and of the style in which the publisher has produced it. The clear, simple language; the abundant high-class illustrations; the accurate divisions and sub-divisions; and, above all, the moderate bulk of the work, are sure to make it a favourite text-book with English students. A special feature in the work is the section on fertilisation, in which an account, more perfect than in any other work with which we are acquainted, is given of the transference of pollen by insects. We have no hesitation in stating our belief that this is the best Botanical Text-Book for medical students in the English language.

Medical Extracts.

Erysipelas and the Antiseptic Method.

M. Vermeuil, in a communication on "Erysipelas and the Antiseptic Method," directs attention to the fact that in the practice of surgery, where the antiseptic method is adopted, erysipelas, if it has not completely disappeared, has become extremely rare, has almost ceased to be epidemic and even endemic, being only worthy of the term sporadic.

The observations, of which he gives an analysis, lead to the following conclusions:

1. Erysipelas, infectious, contagious, auto-inoculable, has multitudinous origins, which it will be difficult to suppress yet awhile.

2. In our great centres, erysipelas, essentially endemic, has two distinct sources of supply—the one exterior, the town; the other interior, the hospital—mutually poisoning each other.

3. One has no direct control over the endemic of the town, nor on the sporadic cases of the hospital; nevertheless, one is much more powerful in the home centre. There one can to a large extent anticipate the appearance and extension of the mischief by minute precautions against auto-inoculation, by antiseptic dressings, by isolation, if this be practicable; and, in default of this, by creating about the patient a circumscribed antiseptic atmosphere.

4. The diminution of erysipelas in surgical wards results, not only in the healthiness of these wards themselves, but of

the whole hospital and its immediate surroundings as well—healthiness most plainly demonstrated by the considerable diminution of erysipelas cases coming from without.

5. If the prophylactic and curative resources, of which science has plainly demonstrated the efficacy, were rigidly and generally applied in town and in hospital, it might be hoped that erysipelas would become as rare as pyæmia, and perhaps disappear as completely as hospital gangrene.—*Bulletin de l'Académie de Médicine*, No. 8, 1885.

Abdominal Tumour.

M. Chauffard, in a case of abdominal tumour, believed to be kidney, adopted the following expedients in order to complete the diagnosis: (*a*) Aspiration on two occasions withdrew fluid of a urinous odour, and charged with pus, similar to that found in the urine. (*b*) Salicylate of soda (2 grammes) was administered, and on the following day the fluid obtained by aspiration was found to contain indications of its presence. (*c*) Fuchsine in solution was injected into the purulent cavity, and one hour afterwards the urine was found to be coloured red.

From these observations, the tumour in the left loin was believed to be a cystic pouch, containing urine and pus, communicating with the kidney on the one hand, and on the other with the bladder through the ureter. M. Chauffard concluded that the case was one of pyelo-nephritis, possibly dependent on a calculus partially obliterating the ureter. This diagnosis was verified by the result of the operation of nephrectomy, performed by M. Polaillon, and the patient made a speedy and complete recovery.—*Bulletin de l'Académie de Médicine*, No. 18, 1885.

Acute Articular Rheumatism.

M. Birnheim presents to the Academy of Medicine of Paris a note on the efficacy of antipyrin in acute articular rheumatism. The drug was administered to ten patients, in doses of six to eight grammes per diem, in divided doses, at intervals of one hour. It was found to be of real advantage, and always to give rise to a disappearance, or notable diminution of the articular swelling. This drug may, therefore, take a definite place side by side with salicylate of soda: it has a very rapid anti-pyretic effect, and is better tolerated, having less tendency to provoke cerebral disturbance.—*Bulletin de l'Académie de Médicine*, No. 9, 1885.

Pulmonary Tuberculosis in Families.

M. E. Leudet (de Rouen), in a paper on "Pulmonary Tuberculosis in Families," arrives at the following conclusions:

1. Families are divided into those which have presented only one case of tuberculosis, and those which have presented several.

2. Tuberculosis occurring only in one member of a family for several generations is said to be acquired. This acquired tuberculosis attacks more easily persons previously debilitated, either congenitally or by previous illness. Pneumonia and bronchitis do not seem to predispose to it in a more marked manner. Persons of the same families, free from tuberculosis, die at an advanced age of maladies other than those connected with the respiratory organs.

3. Hereditary transmission of phthisis exists in more than half the cases. Direct heredity of tuberculosis from fathers and mothers to children has been ascertained in 82 families. Heredity transmitted from father, mother, grandfather and grandmother, from uncle or aunt, to their descendants, existed in 108 families out of 214. In 106 families no trace of heredity was found. Hereditary transmission is more frequent in the maternal than in the paternal line. Pulmonary tuberculosis generally appears in the descendant at the age when the disease is most frequent—that is to say, from 13 to 35 years—whatever be the age at which phthisis manifested itself in the ancestor. Hereditary tuberculosis manifests itself at a less advanced age than acquired tuberculosis. The tubercular heredity of the two ancestors increases the chances of transmission to the descendant, as also if one of the tubercular descendants is united to a person come of a tuberculous family. In tuberculous families, one generation may escape the complaint, the other being attacked.

4. Pulmonary tuberculosis constitutes sometimes a morbid selection, that altogether exterminates *degenerated families*. That extension of the disease is encouraged in the ancestors by the existence of tuberculous cachectic affections, general paralysis, madness, idiocy, &c. In the descendants it is explained by the frequency of cretaceous pulmonary tubercle in some; in others, by the arrests of development, idiocy, hæmophilia, deafness, internal otitis, coxalgia, infantile paralysis.

5. Diseases of the bones and articulations are met with in 20 per cent. of tubercular families. Tubercular affections of bones or articulations oftener precede tuberculosis of the lung.

Auto-inoculation is more frequent during the suppuration of tubercular osteitis. Coxalgia, ozœna, otitis appear to be less serious, and more capable of cure. They exist alone in certain branches of contaminated families.

6. The marriage of a healthy subject, or of a subject springing from a healthy family, with a tuberculous subject, or the issue of a tuberculous subject, even during several generations, diminishes, but does not extinguish, the chances of tuberculosis in the descendant.

7. Does the propagation of tuberculosis by contagion exist in families? Fifty-five families, comprising 415 individuals, have presented only one tuberculous case; 88 families, comprising 1,070 individuals, have presented several tuberculous cases. Contagion is, therefore, not the rule.

8. Marital contagion is, at least, rather rare; it has only appeared possible in 7 couples out of 68. In 61 couples, one of the parties remained free from disease.

9. Contagion appears to derive support from this fact: that in 33 families, of which 15 were tainted with hereditary tuberculosis, 73 children out of 124 were affected with pulmonary tuberculosis in a period varying from one to nine years. More than half the children so affected were debilitated and of feeble constitution previous to the attacks.

10. The progress of pulmonary tuberculosis is much slower in the better classes than amongst the working population. The poor, whose tuberculosis is arrested, often die of consecutive visceral degenerative affections.

11. The rapidity or the slowness of tuberculosis has no connection with heredity.

12. The cure of pulmonary tuberculosis is to be met with in hereditary phthisis, as well as in the acquired disease. Tuberculosis can be cured at all periods.—*Bulletin de l'Académie de Médicine*, No. 15, 1885.

On the Employment of Corrosive Sublimate in Otology.

Dr. E. Menière, in a paper read before the Société Française d'Otologie, in December, 1884, says that he finds the following mixture of phenic acid and glycerine has done him most service in the treatment of chronic otorrhœa, which, as everyone who has had much to do with aural disease knows, is often a most obstinate affection to treat:

Crystallised phenic acid	1 to 10 grammes
Price's glycerine	10 "

A small quantity of this is used after injections of warm

water. He also alludes to what is a matter of every-day experience—that, in certain refractory cases, it is necessary to vary the remedies used; and he especially mentions, that although the alcohol treatment is often very successful, still it frequently has to be stopped, and then again taken up in the same case; with which opinion Dr. Baron thoroughly agrees, having found that where the alcohol treatment, after several weeks of continuous employment, has not been able to do more than to prevent granulations ftom growing, and has not been able to stop the discharge, nor to bring about a healthy condition of the meatus, the substitution of the dry boracic acid treatment frequently does very good service, but that even here the alcohol may have to be used again before cure is brought about.

Dr. Menière then goes on to say that he has used a mixture of corrosive sublimate and glycerine for some months past:

Price's glycerine ... ... 10 grammes
Corrosive sublimate ... ... ·05; ·15; ·30 "

He lays great stress on the necessity of using *perfectly pure* glycerine, and considers Price's the best.

As a matter of experience, he has found that during the period of active sero-purulent secretion, the corrosive sublimate is not better in any way than the phenic acid; but, during the period of oozing, with or without perforation, it is very serviceable, and has produced rapid cures in a relatively short space of time. No inconvenience was noticed in its use.

His paper ends by stating that perseverance in the use of remedies, even after a state of dryness of the ear has been brought about, is very important, in order that it may be lasting.—*Revue Mensuelle de Laryngologie et d'Otologie*, April 1st, 1885.

On the Amount of Pepsin contained in the Gastric Juice in Normal and Pathological Conditions of the Stomach.

Dr. E. Schütz, as the result of very careful examinations, comes to the following results: The gastric juice, obtained by means of a tube from the healthy empty stomach, contains, as a rule, pepsin, the amount of which varies very little in the same individual at different times; but in different individuals it varies between ·4 and 1·2 units. Where the stomach is diseased, the pepsin obtained, under similar conditions as in the healthy person, is much less, as a rule, and

may even be altogether absent in severe cases, or those that have lasted for some time. In less severe cases there was also observed some diminution of the pepsin. In nervous dyspepsia there is little or no change in the amount of this substance present; also the same was noted in the dyspepsia of anæmic and chlorotic patients, and even in those suffering from tuberculosis. A normal or only slightly decreased amount of pepsin is almost always accompanied by a strongly acid reaction of the gastric juice, whilst if the amount is much decreased, or there is none at all present, the reaction is, as a rule, alkaline, neutral, or but feebly acid.—*Deutsch Mediz. Zeitung*, May 4th, 1885.

Experiments on the Power of Milk taken from an Animal suffering from Splenic Fever, to Communicate the Disease to others.

Messrs. Chambrelent and Moussons, writing to the *Revue für Thierheilkaude*, June, 1884, on this important matter, give the results of some experiments made by them.

Feser of Munich, in the year 1879, said that the milk of an animal suffering from splenic fever contained the infectious substance, and the following experiments of Messrs. C. & M. confirm this statement:

1. A guinea-pig that had had a litter ten days previously was inoculated with the cultivated virus of anthrax, as a result of which it died in the course of a day. An hour after its death, a drop of milk was removed from it, and cultivations were made in beef bouillon. A guinea-pig that was inoculated with a drop of this cultivation fluid died after two days, and in its blood the bacillus anthracis was found. A second guinea-pig, which had been inoculated, died during the next day.

2. A similar experiment, using the same methods but not the same animals, resulted in the death of two guinea-pigs.

3. With the same virus as used in experiment No. 2, a rabbit, which was yielding milk at the time, was inoculated; but it remained healthy, and its milk did not produce anthrax bacilli on cultivation.—*Deutsche Mediz. Zeit.*, No. 56.

On the Treatment of Parenchymatous Goitre.

Dr. Moritz Schmidt finds that large doses of iodide of potassium, combined with the constant application of cold, by means of Leiter's apparatus, is very useful in this affection, it having yielded good results in six cases. Where

there is great difficulty of breathing, Dr. S. applied the cold continuously; in less severe cases, for three hours in the morning, and the same length of time in the evening, and not during the rest of the day.—*Deutsche Med. Zeit.*, No. 57.

The Parasitic Origin of Cancer.

The resemblance in many respects between cancer and tuberculosis has led of late to a renewed interest in the old question as to the infectiousness of cancer. Dr. A. Ledoux-Lebard, in the April number of the *Archives Génèrales de Médecine*, makes an elaborate plea in favour of the view that cancer is a parasitic disease. Under the head of clinical and etiological consideration, he shows the analogies between cancer and known chronic infectious diseases, like tuberculosis. Under the head of pathological anatomy, he argues that cancer is a specific inflammation; while, under the head of experimental pathology, he cites the numerous experiments that have been made to determine the inoculability of cancer. The author admits that none of these are demonstrative, while most of them are absolute failures. The best cases are those of Goujon, who successfully inoculated cancerous nodules in a guinea-pig, using a fragment of an epithelial cancer from an animal of the same species. Klenke also is said to have successfully inoculated a horse with melanotic cancer. Dr. Lebard further cites facts which, as he thinks, prove that cancer is auto-inoculable. The natural history of actinomycosis is given as illustrating an infective parasitic disease, allied clinically to cancer, which is undoubtedly not inoculable.

Lebard has himself attempted inoculations of cancer without success. He has also tried, by various staining methods, to discover a characteristic micro-organism. In this, too, he failed, and at present the view that cancer is a parasitic disease continues to rest only upon analogical reasoning.—*N. Y. Med. Record.*

Antipyrine.

So much has already been written concerning this new drug that we cannot hope to add anything new. The excellent article by Dr. Draper, in the *Journal* for April 18th, covers in a short space the main facts with reference to antipyrine, both historical and clinical. He speaks highly of its antipyretic properties, but calls attention distinctly to the fact that it does not appear to have any specific effect upon the febrile affections in the treatment of which it is recommended. This is an important point, since the reader is apt to form a contrary impression after reading the enthusiastic

reports of German observers. Dr. Draper adds the caution that the drug is one which cannot be given indiscriminately. Occasionally unpleasant symptoms are noticed, such as vomiting, chills, and profuse perspiration.

In connection with Dr. Draper's article, we would refer the reader to one on the same subject, in another number of the *Journal*, in which the writer, Dr. Butler, is equally emphatic in praise of the drug as a pure febrifuge. He notes especially the great rapidity with which the temperature was lowered, and makes the important statement that antipyrine is not an antiperiodic, in which fact lies one of its principal points of difference from quinine. Neither of these authors has attempted an explanation of the *modus operandi* of the drug; in fact, in the present state of our knowledge, any explanation would necessarily be largely theoretical. Dr. Draper expresses its action tersely when he says that "it smothers, but does not extinguish, the fire." It is still *sub judice*, and we trust that a sufficient number of observations will be made in hospital practice to fully test the new remedy. The one criticism to be urged against scientific medicine in this country is, that the observers are so few and far between. When some brilliant novelty (such as cocaine) appears, everyone is ready to try it; but for patient, long-continued experiments we are not distinguished. We hope to see antipyrine given a fair trial, not only by city practitioners, but by their brethren in the country, the latter of whom are frequently quite the equals of their metropolitan *confrères* as original observers.—*N. Y. Med. Journal*, May 9th, 1885.

Paraldehyde as a Sleep-producer in the Treatment of the Insane.

As the production of sleep is often a chief factor in the treatment of the insane, I am prompted to offer the result in one hundred and fifty two cases of mental disease in which sleep was induced by a recent hypnotic which is now attracting much attention. When paraldehyde is given to man in moderate dose (fifty minims), the most marked result, in the majority of instances, is a quiet sleep of from two to seven hours, which is induced in ten to forty-five minutes after its absorption.

Its advantages over chloral in our experience are mainly that there is no danger from its action on the heart; in fact, one hundred minims have been given in cases of acute mania without the slightest noticeable effect upon the heart or respirations, the repose simulating closely natural sleep, the subject being easily aroused, but soon dropping off again

when let alone. No convulsive effect or dreamy stimulation of the mind has been observed, its first effect being apparently upon the cerebral hemispheres. Never have we seen the awakening accompanied by any unpleasant symptoms; in fact, there is no objection on this score save the disagreeable odour of the breath, which is perceptible for from twelve to seventeen hours after the exhibition of the drug.

In cases of melancholia paraldehyde has acted commendably; even in patients who would sit for hours deploring their unhappy lot, and whose brains were filled with fears of an overwhelming calamity, a dose of sixty minims of the drug has calmed them into a quiet and apparently dreamless, refreshing sleep. In several instances, however, we found it necessary to increase the dose to seventy-five minims, but this amount uniformly brought on a most gratifying rest.

In those cases where paraldehyde is required to be given for a length of time, a certain tolerance would be expected; but the observations lead us to believe that the tolerance of paraldehyde does not manifest itself sooner than other hypnotics, and whether the increased dose was needful on account of a slight aggravation of the disease, or a tolerance of the drug, as yet we are unable to say: in all probability both have taken a part.

As an anodyne (in a limited number of trials) the remedy has failed either to relieve pain or produce sleep, although seventy-five minims of the drug have been taken; in no case, however, was nausea excited.

Our results having been so uniformly satisfactory, we consider that paraldehyde is a valuable addition to our list of hypnotics; and where a sleep-producer must be given for a length of time, we consider it a most efficient, safe, and reliable remedy, *the sleep produced being in proportion to the size of the dose administered.—Philadelphia Medical Times*, May 16th, 1885.